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'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d his l3-

(FILE 'HCAPLUS' ENTERED AT 08:07:12 ON 19 NOV 2001)

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L3       120480 S SURFACTANT#
L4         7998 S THICKENING (L) AGENT#
L5         8674 S THICKENER#
L6        12053 S L4 OR L5
L7         1455 S L3 AND L6
L8         3275 S INSECT? (L) REPELL?
L9            5 S L7 AND L8
L10       24353 S L1 OR SODIUM LAURYL SULFATE#
L11      133706 S L10 OR L3
L12       12447 S L6 OR CORN (2A) SYRUP?
L13        1510 S L11 AND L12
L14           5 S L13 AND L8
L15         356 S CORN SYRUP?
L16           0 S L15 AND L10
L17         181 S L10 AND L6
L18           0 S L17 AND L8
L19           0 S L18 AND 5/SX,SC
L20      104681 S INSECT?
L21           1 S L17 AND L20
L22           6 S L9 OR L14 OR L21
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~ surfactant + insect

FILE 'REGISTRY' ENTERED AT 08:13:50 ON 19 NOV 2001

FILE 'HCAPLUS' ENTERED AT 08:14:03 ON 19 NOV 2001

=> d .ca l22 1-6

L22 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:355005 HCAPLUS
DOCUMENT NUMBER: 134:371590
TITLE: Cosmetic and/or pharmaceutical formulations containing oligoglycosides and aminodicarboxylic acid ester
INVENTOR(S): Schmid, Karl Heinz; Fabry, Bernd
PATENT ASSIGNEE(S): Cognis Deutschland G.m.b.H., Germany
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19950497	A1	20010517	DE 1999-19950497	19991020

OTHER SOURCE(S): MARPAT 134:371590

AB Mild cosmetic and/or pharmaceutical foams contain (A) alkyl and/or alkenyl oligoglycosides and (B) aminodicarboxylic acid partial esters and/or their salts. Thus, a cosmetic formulation contained C12/14 coco alkyl oligoglucoside 50, and glutamic acid monolauryl ester sodium salt 50%.

IC ICM A61K007-00
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 63

IT Antiperspirants
Bath preparations
Cosmetics
Drug delivery systems
Dyes
Emulsifying agents
Hair preparations
Insect repellents
Photoprotectants
Preservatives
Shampoos
Solubilizers
Stabilizing agents
Surfactants
Thickening agents
(cosmetic and/or pharmaceutical formulations contg. oligoglycosides and aminodicarboxylic acid esters)

REFERENCE COUNT: 5
REFERENCE(S): (1) Anon; DE 19541754 A1 HCAPLUS
(2) Anon; DE 19632044 A1 HCAPLUS
(3) Anon; DE 4428823 A1 HCAPLUS
(4) Anon; DE 4433071 C1 HCAPLUS
(5) Anon; WO 9608551 A1 HCAPLUS

L22 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:401620 HCAPLUS
DOCUMENT NUMBER: 133:48719
TITLE: Emulsification systems and emulsions
INVENTOR(S): Dederen, Christian Joseph; Wetzel, Thierry; Serrien, Guido
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000033806	A1	20000615	WO 1999-GB3969	19991129
W: AU, BR, CA, CN, HU, ID, JP, KR, MX, PL, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1137396	A1	20011004	EP 1999-956244	19991129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:
GB 1998-26699 A 19981205
US 1998-111440 P 19981208
WO 1999-GB3969 W 19991129

AB Personal care or cosmetic oil in water emulsions include an oil emulsifier and a combination of a xanthan polysaccharide and a polyglucomannan polysaccharide to provide enhanced stability even at low emulsifier stabilizer levels. The emulsifier stabilizer system provides stable emulsions without dominating system rheol., particularly viscosity. Thus, the emulsions can have a low viscosity suitable for formulation as milks or thin lotions, or can be thickened, desirably by thickening agents other than the xanthan and/or polyglucomannan, to provide emulsion creams or gels. This enables the system to be used very flexibly in end use applications. The emulsifier is desirably a nonionic emulsifier and particularly is a combination of a low HLB and a high HLB emulsifier and can be formulated with conventional alc. ethoxylated surfactants or from non-EO surfactants e.g. sucrose ester high HLB surfactants and citrate or

sorbitan ester low HLB surfactants. Emulsions with very high oil concn. and their diln. to cosmetic use concns. were used.

IC ICM A61K007-48
ICS C08L005-00; C08L005-14

CC 62-4 (Essential Oils and Cosmetics)

ST cosmetic emulsion **surfactant** additive polysaccharide; emulsification cosmetic **surfactant**

IT Emulsification
Emulsifying agents
Humectants
Hydrophile-lipophile balance value
Insect repellents
Perfumes
Pigments, nonbiological
Preservatives
Sunscreens
Suntanning agents
Surfactants
Thickening agents
Viscosity
(emulsification systems and cosmetic emulsions)

REFERENCE COUNT: 4
REFERENCE(S):
(1) Anon; Manufacturing Chemist 1992, V63(2), P43
(2) FMC Corporation; CA 2188331 A 1997 HCAPLUS
(3) Morinaga Milk Industry Co; EP 0208313 A 1987 HCAPLUS
(4) Unilever; WO 9819553 A 1998 HCAPLUS

L22 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:659203 HCAPLUS
DOCUMENT NUMBER: 131:303236
TITLE: Improved low residue cosmetic composition based on a silicone gel and a **surfactant**
INVENTOR(S): Potechin, Kathy J.; Guenin, Eric P.; Tang, Xiaozhong; Mattai, Jairajh; Linn, Elizabeth; Lee, Wilson; Vincenti, Paul
PATENT ASSIGNEE(S): Colgate-Palmolive Company, USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951192	A2	19991014	WO 1999-US7134	19990331
WO 9951192	A3	19991118		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9934600	A1	19991025	AU 1999-34600	19990331
BR 9909351	A	20001212	BR 1999-9351	19990331
EP 1067901	A2	20010117	EP 1999-916244	19990331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, RO				
NO 2000004948	A	20001116	NO 2000-4948	20001002

PRIORITY APPLN. INFO.: US 1998-54666 A 19980403

US 1999-273152 A 19990319
WO 1999-US7134 W 19990331

AB Low residue cosmetic compns. (esp. underarm products) comprise (1) an active ingredient, (2) a silicone gel material with an elastomer compn., and (3) at least one surfactant having an HLB value in the range of 8-16. The compns. of this invention exhibit reduced or eliminated film formation when applied to the skin and increased availability of the active ingredient. A soft solid antiperspirant/deodorant compn. was prepd. contg. cyclopentasiloxane and cetearyl dimethicone-vinyl dimethicone crosspolymer 65.05%, Al-Zr tetrachloroxydrex glycine 22.50%, neopentyl glycol diheptanoate 5.00%, C12-15 alkyl benzoate 3.00%, PEG-8 distearate 2.00%, dimethicone copolyol 1.00%, stearyl dimethicone 0.75%, silica 0.20%, and fragrance 0.50%. The compn. showed the superiority over a ref. compn., esp. in less whitening.

IC ICM A61K007-00
CC 62-4 (Essential Oils and Cosmetics)
ST polysiloxane gel **surfactant** antiperspirant deodorant; antibacterial antifungal polysiloxane gel **surfactant**; **insect repellent** polysiloxane gel **surfactant**

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated, Cetomacrogol 1000; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(C16-18-alkyl, polymer with vinyl dimethicone; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(alkoxylated; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(alkyl group-terminated; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Quaternary ammonium compounds, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bacteriostatic; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Fatty acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(branched fatty acids; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Antibacterial agents
Antiperspirants
Cosmetics
Deodorants (personal)
Fungicides
Gelation agents
Insect repellents
Perfumes
Surfactants
Thickening agents
(cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Esters, biological studies
Hydrocarbon oils

Hydrocarbons, biological studies
Lanolin
Paraffin oils
Petrolatum
Silanes
Silver halides
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Cyclosiloxanes
Glycerides, biological studies
Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Hydrophile-lipophile balance value
(cosmetic compns. with low residue based on silicone gel and **surfactant** with specific HLB value)

IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me polysiloxane-, Silwet L 7622; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me vinyl, polymer with cetearyl dimethicone; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, 3-hydroxypropyl Me, ethoxylated propoxylated, Abil B 8852; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen polysiloxane-, dilaurates, Silwax WS-L; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen polysiloxane-; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen, polyoxyalkylene-, dilaurates, Silwax WS-L; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen, polyoxyalkylene-; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, Me stearyl; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, ethers with polyethylene glycol monostearate, Silwax WD IS; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, hydroxy-terminated, diesters with castor-oil fatty acids, Silwax C; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, polyoxyalkylene-, Silwet L 7622; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, vinyl group-contg.; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me, vinyl group-terminated; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Cyclosiloxanes
Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(di-Me; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Fatty acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(esters; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Castor oil
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(ethoxylated, Incrocras 30; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Corn oil
Palm kernel oil
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(ethoxylated; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Glycerides, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(ethoxylated; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(fatty; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Castor oil
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(hydrogenated, ethoxylated, Cremophor RH 60; cosmetic compns. with low

residue based on silicone gel and **surfactant**)

IT **Surfactants**
(nonionic; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(polyether-; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Fatty acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(satd.; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Crosslinking agents
(silicone hydrides; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Waxes
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(silicone; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polyethers, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(siloxane-; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Fatty acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(unsatd.; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(vinyl group-terminated, crosslinked; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 113609-82-8
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(Eumulgin L; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 9005-02-1, Jeemate 600DL
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(Jeemate 400DL; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 247028-81-5, Silwax S
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(Silwax S; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 50-21-5D, Lactic acid, C12-15 alkyl esters 56-81-5D, Glycerin, octoxy derivs. 57-09-0, Cetyl trimethylammonium bromide 101-20-2, N-(4-Chlorophenyl)-N'-(3,4-dichlorophenyl)urea 109-36-4, Octyl stearate 110-17-8D, Fumaric acid, C12-15 alkyl esters 110-27-0, Isopropyl myristate 112-10-7, Isopropyl stearate 112-92-5, Stearyl alcohol 123-03-5, Cetyl pyridinium chloride 123-95-5, Butyl stearate 142-91-6, Isopropyl palmitate 1190-63-2, Cetyl stearate 1327-41-9, Aluminum chlorohydrate 3380-34-5 7440-22-4D, Silver, halides 7440-31-5D, Tin, chlorohydrate derivs. 7440-66-6D, Zinc, salts 7446-70-0, Aluminum chloride, biological studies 7491-02-3, Diisopropyl sebacate 7735-26-4, Diethylene glycol dioctanoate 9003-27-4D, Polyisobutene,

hydrogenated 9004-34-6, Cellulose, biological studies 10401-55-5, Cetyl ricinoleate 15763-02-7, Dioctyl malate 17671-27-1, Behenyl behenate 18428-88-1, Zirconyl hydroxychloride 25838-59-9 27138-31-4, Dipropylene glycol dibenzoate 27458-93-1, Isostearyl alcohol 34316-64-8, Hexyl laurate 36653-82-4, Cetyl alcohol 41669-30-1, Isostearyl isostearate 42131-25-9, Isononyl isononanoate 42131-28-2, Isostearyl lactate 53026-85-0, Aluminum Chlorohydrex Propylene Glycol 55326-67-5, Zirconium hydroxide nitrate 56992-68-8 59231-34-4, Isodecyl oleate 59686-68-9, Myreth-3 myristate 68171-33-5, Isopropyl isostearate 83826-43-1, Octyldodecyl myristate 84878-30-8, Octyl isononanoate 100630-11-3, Propylene glycol ceteth-3 acetate 125913-22-6, Aluminum-zirconium pentachlorohydrex Gly 134375-99-8, Aluminum-zirconium trichlorohydrex glycine 134910-86-4, Aluminum-zirconium tetrachlorohydrex Gly 138208-67-0 173720-80-4, Aluminum dichlorohydrex polyethylene glycol 173762-81-7, Aluminum chlorohydrex polyethylene glycol 173763-15-0, Aluminum sesquichlorohydrate 174514-58-0, Aluminum-zirconium octachlorohydrex Gly 178900-23-7, Propylene glycol isoceteth-3 acetate 180324-83-8, Aluminum dichlorohydrex propylene glycol 190282-37-2, Diethylene glycol diisononanoate 210298-50-3, Isodecyl octanoate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 65-85-0D, Benzoic acid, C12-15 alkyl esters 107-50-6 124-07-2D, Octanoic acid, C12-15 alkyl esters 294-40-6, Cyclopentasiloxane 540-97-6 541-02-6 541-05-9 556-67-2 1338-39-2, Span 20 1338-41-6, Span 60 1338-43-8, Span 80 3234-85-3, Alkamuls MM/M 6938-94-9, Diisopropyl adipate 7631-86-9, Silica, biological studies 8051-73-8, Atlas G 1726 9002-88-4, Polyethylene 9002-92-0 9004-81-3, Jeemate 400ML 9004-96-0, Alkamuls 400MO 9004-98-2, Oleth 5 9004-99-3, Myrj 52 9005-00-9, Brij 72 9005-08-7 9005-64-5, Tween 20 9005-65-6, Tween 80 9005-66-7, Tween 40 9005-67-8, Tween 60 9014-93-1, Igepal DM 530 9035-85-2, Procetyl 50 9036-19-5, Igepal CA 877 9038-95-3, Ucon 50HB100 11099-07-3, Glyceryl stearate 25231-21-4, Witconol APS 26266-57-9, Span 40 27841-04-9, Neopentyl glycol diheptanoate 31566-31-1, Cutina GMS 37231-60-0, G 2162 37311-01-6, Procetyl AWS 39365-90-7 51394-12-8 52581-71-2, Provol 50 53609-72-6, Probutyl DB 10 54392-26-6, Crill 6 63793-60-2, Promyristyl PM3 66794-58-9, Crillet 6 68958-56-5 74775-06-7, Crodamol PMP 84750-06-1, Arlacel 165 110734-66-2, Abil WE 09 153190-98-8, Poloxamer 105 benzoate 195868-36-1, Phenyltrimethicone 247025-60-1, Silsoft Shine
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 9004-73-3, Polymethylhydrosiloxane 24979-95-1, Poly[oxy(ethylsilylene)] 156118-35-3 156894-03-0 159487-10-2
RL: RCT (Reactant)
(crosslinking agent; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 7429-90-5, Aluminum, properties 7440-67-7, Zirconium, properties
RL: PRP (Properties)
(release of; cosmetic compns. with low residue based on silicone gel and **surfactant**)

IT 106392-12-5, Antarox 17R4
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(triblock, poloxamer, meroxapol 174; cosmetic compns. with low residue based on silicone gel and **surfactant**)

L22 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:113742 HCAPLUS
DOCUMENT NUMBER: 130:187003
TITLE: Cosmetic composition containing siloxane-based polyamides as **thickening agents**
INVENTOR(S): Barr, Morton L.; Cai, Heng; Esposito, Anthony; Freundlich, Joel; King, Douglas W.; Mendolia, Michael; Moghe, Bhalchandra; Petroff, Lenin James; Schamper, Thomas; Skinner, Michael Ward; Vincenti, Paul Joseph; Wu, Ching-Min Kimmy; Zimmerman, Kenneth Edward; Colwell, Dennis J.
PATENT ASSIGNEE(S): Colgate-Palmolive Company, USA; Dow Corning Corporation
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906473	A1	19990211	WO 1998-US15846	19980730
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6051216	A	20000418	US 1997-904709	19970801
~~AU 9886736~~	A1	19990222	AU 1998-86736	19980730
AU 730357	B2	20010308		
EP 1000112	A1	20000517	EP 1998-938143	19980730
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI, RO				
BR 9811064	A	20000919	BR 1998-11064	19980730
JP 2001512164	T2	20010821	JP 2000-505224	19980730
NO 2000000492	A	20000328	NO 2000-492	20000131

PRIORITY APPLN. INFO.: US 1997-904709 A 19970801
WO 1998-US15846 W 19980730

AB An invention is disclosed which comprises siloxane-based polyamides as gelling agents for cosmetic products, methods for making such agents, formulations thereof and cosmetic formulations therewith. These polyamides contain siloxane groups in the main chain and act to thicken compns. contg. volatile and/or non-volatile silicone fluids. Cosmetic compns. may be made by adding at least one active ingredient such as an antiperspirant. A di-Me H end-blocked polydimethylsiloxane was prepd., treated with a complex of PtCl2 and divinyl tetra-Me disiloxane, then with trimethylsilyl protected undecylenic acid to give a carboxylic acid end-blocked siloxane and then treated with hexamethylenediamine to give the silicone polyamide. Gels contg. the silicone polyamide are given.

IC ICM C08G077-455
ICS A61K007-32; A61K007-48
CC 62-4 (Essential Oils and Cosmetics)
ST siloxane polyamide cosmetic gel; **thickener** cosmetic siloxane polyamide
IT Antibacterial **agents**
Antiperspirants
Cosmetic gels
Cosmetics
Insect repellents
Perfumes
Sunscreens

Surfactants
Thickening agents
(cosmetic compn. contg. siloxane-based polyamides as **thickening agents**)

IT Polyamides, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-Me siloxane-; cosmetic compn. contg. siloxane-based polyamides as **thickening agents**)

IT Polysiloxanes, biological studies
RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-Me, polyamide-; cosmetic compn. contg. siloxane-based polyamides as **thickening agents**)

IT 56-40-6D, Glycine, complex with aluminum and zirconium 107-15-3D, Ethylenediamine, reaction products with carboxylic acid end-blocked dimethylsiloxanes 110-85-0D, Piperazine, reaction products with carboxylic acid end-blocked dimethylsiloxanes 646-25-3D, Decamethylenediamine, reaction products with carboxylic acid end-blocked dimethylsiloxanes 1327-41-9, Aluminum chlorohydrate 1327-41-9D, reaction prod with tin 7429-90-5D, Aluminum, complex with zirconium and glycine 7440-31-5D, Tin, reaction prod with aluminum chloride 7440-67-7D, Zirconium, complex with aluminum and glycine 7446-70-0, Aluminum chloride, biological studies 13473-90-0D, Aluminum nitrate, hydrates 13826-66-9, Zirconyl nitrate 18428-88-1, Zirconyl hydroxychloride 24991-53-5D, reaction products with carboxylic acid end-blocked dimethylsiloxanes 25265-76-3D, Phenylenediamine, reaction products with carboxylic acid end-blocked dimethylsiloxanes 26603-36-1D, Xylenediamine, reaction products with carboxylic acid end-blocked dimethylsiloxanes 173720-80-4, Aluminum dichlorohydrex PEG 173762-81-7, Aluminum chlorohydrex PEG 173762-82-8, Aluminum chlorohydrex PG 173763-15-0, Aluminum sesquichlorohydrate 180324-83-8, Aluminum dichlorohydrex PG
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cosmetic compn. contg. siloxane-based polyamides as **thickening agents**)

IT 124-09-4DP, Hexamethylenediamine, reaction products with dimethylsiloxane deriv. and undecylenic acid 24338-09-8DP, Trimethyl silyl undecylenate, reaction products with dimethylsiloxane and hexamethylenediamine 31900-57-9DP, Dimethylsilanediol, homopolymer, di-Me end-blocked, reaction products with undecylenic acid and hexamethylenediamine 115254-29-0DP, reaction products with undecylenic acid and hexamethylenediamine
RL: BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cosmetic compn. contg. siloxane-based polyamides as **thickening agents**)

REFERENCE COUNT: 5
REFERENCE(S):
(1) Colgate Palmolive Co; WO 9736573 A 1997 HCAPLUS
(2) Daicel Huels Ltd; GB 2147305 A 1985 HCAPLUS
(3) Kao Corp; JP 07173395 A 1995 HCAPLUS
(4) Kose Corp; EP 0545002 A 1993 HCAPLUS
(5) Rich, J; US 4604442 A 1986 HCAPLUS

L22 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:55496 HCAPLUS
DOCUMENT NUMBER: 128:132258
TITLE: Topical cosmetic compositions containing crosslinked and at least 90% neutralized poly(2-acrylamido-2-methylpropanesulfonic acid)
INVENTOR(S): Dupuis, Christine; Hansenne, Isabelle; Maubru, Mireille; Sebillotte-Arnaud, Laurence; Lorant, Raluca
PATENT ASSIGNEE(S): L'Oreal, Fr.; Dupuis, Christine; Hansenne, Isabelle;

Maubru, Mireille; Sebillotte-Arnaud, Laurence; Lorant, Raluca

SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9800094	A1	19980108	WO 1997-FR1098	19970618
W: BR, CA, JP, KR, PL, RU, US				
FR 2750325	A1	19980102	FR 1996-8107	19960628
FR 2750325	B1	19980731		
EP 815828	A1	19980107	EP 1997-401400	19970618
EP 815828	B1	19990224		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CA 2227975	AA	19980108	CA 1997-2227975	19970618
JP 10511703	T2	19981110	JP 1997-503870	19970618
AT 176863	E	19990315	AT 1997-401400	19970618
ES 2131428	T3	19990716	ES 1997-401400	19970618
BR 9706550	A	19990720	BR 1997-6550	19970618
RU 2152780	C2	20000720	RU 1998-105687	19970618
JP 3115001	B2	20001204	JP 1998-503870	19970618
US 6120780	A	20000919	US 1998-29514	19981027

PRIORITY APPLN. INFO.: FR 1996-8107 A 19960628
WO 1997-FR1098 W 19970618

AB The use of crosslinked and at least 90% neutralized poly(2-acrylamido-2-methylpropanesulfonic acid) polymers is described. The invention concerns particularly the use of these polymers as thickening and/or gelling agents in cosmetic and/or dermatol. compns. Thus, a copolymer (I) was prepd. by the reaction of ammonium 2-acrylamido-2-methylpropanesulfonate and trimethylolpropane triacrylate. A moisturizing gel contained I 1.5, glycerin 3, EtOH 20 and water to 100 g.

IC ICM A61K007-06
ICS A61K007-48
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 63

IT Antioxidants
Bath preparations
Cosmetic gels
Cosmetics
Gelation agents
Mouthwashes
Nail polishes
Perfumes
Sequestering agents
Shampoos
Surfactants
Thickening agents
Topical drug delivery systems
(topical cosmetic compns. contg. crosslinked and neutralized poly(acrylamidomethylpropanesulfonic acid))

IT Alcohols, biological studies
Antibacterial agents
Ceramides
Fatty acid esters
Glycol ethers
Insect repellents
Polyhydric alcohols
Polymers, biological studies

Polyoxyalkylenes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(topical cosmetic compns. contg. crosslinked and neutralized poly(acrylamidomethylpropanesulfonic acid))

L22 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1979:542332 HCAPLUS
DOCUMENT NUMBER: 91:142332
TITLE: Paste **insecticides** for wood
INVENTOR(S): Nishimura, Kunio; Hirakimoto, Kazushige; Kanada, Sadaoki; Katayama, Sakae
PATENT ASSIGNEE(S): Katayama Kagaku Kogyo Kenkyusho Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54049303	A2	19790418	JP 1977-115897	19770926
JP 59021287	B4	19840518		

AB Compns. of H2O-hydrocarbon mixt. 100, insecticide 1-15, surfactants 3-12, thickener 0-10, and water-miscible solvents 0-10 parts are useful as insecticide pastes for wood. Thus, a compn. of (Bu3Sn)2O 10, spindle oil 49, camphor oil 5, ethylene glycol nonylphenyl ether [27986-36-3] (HLB 16.0) 2, polyethylene glycol sorbitan monooleate [9005-65-6] (HLB 15.0) 3, CM-cellulose Na salt [9004-32-4] 1, and H2O 30 parts was applied to a pinewood panel to 1 g/10 cm2 and left 3 days. The depth of diffusion of the (Bu3Sn)2O was 4 mm, compared with <0.5 mm for a 2:98 mixt. of (Bu3Sn)2O and kerosine applied twice in 2 days (0.4 g/10 cm2 each time).
IC B27K003-34
CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)
ST wood **insecticide** paste; organotin **insecticide** paste wood; tributyltin oxide paste wood **insecticide**
IT 56-35-9 56-36-0 639-58-7 40161-08-8
RL: USES (Uses)
(**insecticide** pastes contg., with improved diffusion into wood)
IT **151-21-3**, uses and miscellaneous 9003-11-6 9004-96-0 9005-65-6 27986-36-3
RL: USES (Uses)
(organotin-based **insecticide** pastes contg., for improved diffusion into wood)
IT 9003-04-7 9004-32-4 9005-38-3
RL: USES (Uses)
(**thickeners**, for organotin-based **insecticide** pastes for wood)

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=> fil uspatfull
FILE 'USPATFULL' ENTERED AT 08:35:49 ON 19 NOV 2001
CA INDEXING COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 13 Nov 2001 (20011113/PD)
FILE LAST UPDATED: 13 Nov 2001 (20011113/ED)
HIGHEST GRANTED PATENT NUMBER: US6317885
HIGHEST APPLICATION PUBLICATION NUMBER: US2001016957
CA INDEXING IS CURRENT THROUGH 13 Nov 2001 (20011113/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 13 Nov 2001 (20011113/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Oct 2001
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Oct 2001

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>>>  original, i.e., the earliest published granted patents or         <<<
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>>>  publications, starting in 2001, for the inventions covered in     <<<
>>>  USPATFULL.  A USPATFULL record contains not only the original     <<<
>>>  published document but also a list of any subsequent              <<<
>>>  publications.  The publication number, patent kind code, and      <<<
>>>  publication date for all the US publications for an invention     <<<
>>>  are displayed in the PI (Patent Information) field of USPATFULL   <<<
>>>  records and may be searched in standard search fields, e.g., /PN, <<<
>>>  /PK, etc.                                                         <<<

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>>>  Use USPATALL when searching terms such as patent assignees,       <<<
>>>  classifications, or claims, that may potentially change from     <<<
>>>  the earliest to the latest publication.                           <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

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     (FILE 'HCAPLUS' ENTERED AT 08:17:05 ON 19 NOV 2001)
               DEL HIS Y

     FILE 'REGISTRY' ENTERED AT 08:23:27 ON 19 NOV 2001
               E SODIUM LAURYL SULFATE/CN
L1             1 S E3

     FILE 'USPATFULL' ENTERED AT 08:23:43 ON 19 NOV 2001
L2           995 S ((NA OR SODIUM) (W) LAURYL SULFATE)/TI,AB,CLM
L3         27317 S (SURFACTANT#)/TI,AB,CLM
L4           984 S (CORN SYRUP)/TI,AB,CLM
L5          8536 S (THICKENER? OR THICKENING)/TI,AB,CLM
L6             0 S (INSECT (4A) REPELL)/TI,AB,CLM
L7           584 S (INSECT (4A) REPELL?)/TI,AB,CLM
L8         27754 S L2 OR L3
L9          9487 S L5 OR L4
L10         2051 S L8 (L) L9
L11           41 S L7 (L) L10
L12        53713 S (SPRAY? OR AEROSOL?)/TI,AB,CLM
L13           18 S L12 AND L11
L14         6426 S PRESERVA?/AB,TI,CLM
L15          615 S ((NA OR SODIUM) (W) BENZOATE?)/TI,AB,CLM
L16         6896 S L15 OR L14
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unable to search AN - problems with STN/CAS. STN working on problem

L17 26 S L11 AND L16
L18 29 S L17 OR L13

FILE 'USPATFULL' ENTERED AT 08:35:49 ON 19 NOV 2001

=> d bib ab clm 1-29

L18 ANSWER 1 OF 29 USPATFULL
AN 2001:119302 USPATFULL
TI INSECT REPELLANT COMPOSITIONS
IN LAMBINO, DANILO L., QUEZON CITY, Philippines
DEE, KENNIE U., QUEZON CITY, Philippines
NIEMIEC, SUSAN M., YARDLEY, PA, United States
PI US 2001009925 A1 20010726
AI US 1998-89762 A1 19980603 (9)
DT Utility
FS APPLICATION
LREP PHILIP S. JOHNSON, ESQ., JOHNSON & JOHNSON, ONE JOHNSON & JOHNSON PLAZA, NEW BRUNSWICK, NJ, 08933-7008
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 4 Drawing Page(s)
LN.CNT 972
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to insect repellant compositions containing, based upon the total weight of the composition, from about 6 to about 30 percent by weight of insect repellant active material having functionality selected from ester, amide, urethane or combinations thereof; from about 5 to about 30 percent by weight of alcohol, and from about 1 to about 10 percent by weight of nonionic surfactant. The compositions of the invention exhibit reduced rates of degradation of the active material in solution and are less drying and irritating to sensitive skin.
CLM What is claimed is:
1. An **insect repellant** composition comprising, based upon the total weight of the composition: a. from about 6 to about 30 percent of **insect repellant** active material, said active material containing a functionality selected from ester, amide, urethane or combinations thereof; b. from about 5 to about 30 percent of alcohol selected from i. ethanol; ii. isopropanol; iii. a glycol monoalkyl ether, said alkyl having from about 1 carbon atom to about 4 carbon atoms; iv. a glycol containing from about 3 carbon atoms to about 6 carbon atoms; v. oligomers of ethylene glycol or propylene glycol; or vi. mixtures thereof; and c. from about 1 to about 10 percent by weight of **surfactant**.

2. The composition of claim I wherein the **insect repellant** active material is selected from: a. N,N-diethyltoluamide, b. one or more compounds of the formula ##STR10## wherein R.sub.1 is a branched or unbranched alkyl group having about 1 carbon atom to about 6 carbon atoms; R.sub.2 is H, methyl or ethyl; R.sub.3 is a branched or unbranched alkyl or alkoxy group having from about 1 carbon atom to about 8 carbon atoms; and X is a --CN or a --COOR.sub.4 group, wherein R.sub.4 is a branched or unbranched alkyl group having from about 1 carbon atom to about 6 carbon atoms; c. one or more natural or synthetic pyrethroids; or d. mixtures thereof.

3. The composition of claim 2 wherein the **insect repellent** active material is selected from N,N-diethyltoluamide, ethyl 3-(N-butylacetamido)propionate or mixtures thereof.

4. The composition of claim 1 wherein the alcohol is a glycol selected

from propylene glycol, butylene glycol, pentylene glycol, hexylene glycol, oligomers of ethylene glycol, oligomers of propylene glycol or mixtures thereof.

5. The composition of claim 1 wherein the **surfactant** is a nonionic **surfactant** selected from alkoxylated alcohols, alkoxylated alkyl phenols, alkoxylated acids, alkoxylated amides, alkoxylated amines, alkoxylated sugar derivatives, alkoxylated derivatives of natural oils or waxes, polyoxyethylene polyoxypropylene block copolymers or mixtures thereof.

6. The composition of claim 5 wherein the **surfactant** is selected from a. alkoxylated alcohols having the structure ##STR11## wherein R.sub.5 is a branched or unbranched alkyl group having about 6 to about 22 carbon atoms and y is between about 10 and about 100; b. alkoxylated alkyl phenols having the structure ##STR12## wherein R.sub.6 is a branched or unbranched alkyl group having about 6 to about 22 carbon atoms and z is between about 10 and about 120; or c. mixtures thereof.

7. The composition of claim 1 which further comprises one or more additives selected from **thickeners**, buffering agents, chelating agents or fragrances.

8. The composition of claim 7 wherein the composition further comprises a **thickener**, said **thickener** being selected from a homopolymer or copolymer of acrylic acid or a salt thereof.

9. The composition of claim 1 which further comprises one or more therapeutically or cosmetically active ingredients selected from fungicides, sunscreening agents, sunblocking agents, vitamins, tanning agents, plant extracts, anti-inflammatory agents, anti-oxidants, radical scavenging agents, retinoids, alpha-hydroxy acids, emollients, antiseptics, antibiotics, antibacterial agents or antihistamines.

10. The composition of claim 1 which has a pH in the range of about 5.5 to about 7.5.

11. The composition of claim 1 wherein the **surfactant** is laureth-23.

12. The composition of claim 1 which is substantially free of lower monohydric alcohols having from about 2 to about 4 carbon atoms.

13. The composition of claim 1 wherein the composition is in the form of a cologne, a lotion, a **spray**, an **aerosol**, a cream, a milk, a gel, an ointment, a suspension, a dispersion, a foam, a makeup, a shampoo, a hair lacquer or a hair rinse.

14. The composition of claim 1 wherein the composition comprises ordered structures selected from micelles, vesicles or mixtures thereof.

15. The composition of claim 14 wherein the number-weighted mean diameter of the ordered structures is less than about 100 nanometers.

16. The composition of claim 14 wherein the number-weighted mean diameter of the ordered structures is less than about 5 nanometers.

17. The composition of claim 1 wherein A. the **insect repellant** active material is selected from: i. N,N-diethyltoluamide, ii. one or more compounds of the formula ##STR13## wherein R.sub.1 is a branched or unbranched alkyl group having about 1 carbon atom to about 6 carbon atoms; R.sub.2 is H,

methyl or ethyl; R.sub.3 is a branched or unbranched alkyl or alkoxy group having from about 1 carbon atom to about 8 carbon atoms; and X is a --CN or a --COOR.sub.4 group, wherein R.sub.4 is a branched or unbranched alkyl group having from about 1 carbon atom to about 6 carbon atoms; iii. one or more natural or synthetic pyrethroids; or iv. mixtures thereof; B. the alcohol is selected from i. ethanol; ii. isopropanol; iii. a glycol monoalkyl ether, said glycol monoalkyl ether having an alkyl group having from about 1 carbon atom to about 4 carbon atoms; iv. a glycol containing from about 3 carbon atoms to about 6 carbon atoms; v. oligomers of ethylene glycol or propylene glycol; or vi. mixtures thereof; and C. the **surfactant** is selected from alkoxylated alcohols, alkoxylated alkyl phenols, alkoxylated acids, alkoxylated amides, alkoxylated amines, alkoxylated sugar derivatives, alkoxylated derivatives of natural oils or waxes, polyoxyethylene polyoxypropylene block copolymers or mixtures thereof.

18. The composition of claim 17 which comprises, based upon the total weight of the composition, from about 10 to about 15 percent of **insect repellant** active material, about 10 to about 15 percent alcohol and about 1 to about 7.5 percent **surfactant**.

19. The composition of claim 1 wherein a. the **insect repellant** active material is selected from N,N-diethyltoluamide, ethyl 3-(N-butylacetamido)propionate or mixtures thereof; b. the alcohol is a glycol selected from propylene glycol, butylene glycol, pentylene glycol, hexylene glycol, oligomers of ethylene glycol, oligomers of propylene glycol or mixtures thereof; and c. the **surfactant** is selected from i. alkoxylated alcohols having the structure R.sub.5--(OCH.sub.2CH.sub.2)y--OH wherein R.sub.5 is a branched or unbranched alkyl group having about 6 carbon atoms to about 22 carbon atoms and y is between about 10 and about 100; ii. alkoxylated alkyl phenols having the structure ##STR14## wherein R.sub.6 is a branched or unbranched alkyl group having about 6 carbon atoms to about 22 carbon atoms and z is between about 10 and about 120; or iii. mixtures thereof.

20. The composition of claim 19 which comprises, based on the total weight of the composition, about 10 percent to about 15 percent **insect repellant** active material, about 10 percent to about 15 percent glycol and about 1 percent to about 7.5 percent **surfactant**.

21. A method of reducing the rate of degradation of an **insect repellant** active material in an aqueous composition, said active material containing a functionality selected from ester, amide, urethane or combinations thereof, comprising incorporating into the composition under conditions sufficient a degradation-effective amount of a **surfactant**.

22. The method of claim 21 wherein a. the **insect repellant** active material is selected from: i. N,N-diethyltoluamide or ii. one or more compounds of the formula ##STR15## wherein R.sub.1 is a branched or unbranched alkyl group having about 1 carbon atom to about 6 carbon atoms; R.sub.2 is H, methyl or ethyl; R.sub.3 is a branched or unbranched alkyl or alkoxy group having from about 1 carbon atom to about 8 carbon atoms; and X is a --CN or a --COOR.sub.4 group, wherein R.sub.4 is a branched or unbranched alkyl group having from about 1 carbon atom to about 6 carbon atoms; iii. one or more natural or synthetic pyrethroids; or iv. mixtures thereof; and b. the **surfactant** is a nonionic **surfactant** selected from alkoxylated alcohols, alkoxylated alkyl phenols, alkoxylated acids, alkoxylated amides, alkoxylated amines, alkoxylated sugar derivatives, alkoxylated derivatives of natural oils

or waxes, polyoxyethylene polyoxypropylene block copolymers or mixtures thereof.

23. The method of claim 22 comprising, based upon the total weight of the composition, a. from about 10 percent to about 15 percent of the **insect repellant** active material comprised of one or more compounds of the formula ##STR16## wherein R.sub.1 is a branched or unbranched alkyl group having about 1 carbon atom to about 6 carbon atoms; R.sub.2 Is H, methyl or ethyl; R.sub.3 is a branched or unbranched alkyl or alkoxy group having from about 1 carbon atom to about 8 carbon atoms; X is a --CN or a --COOR.sub.4 group; wherein R.sub.4 is a branched or unbranched alkyl group having from about 1 carbon atom to about 6 carbon atoms; and b. from about 1 percent to about 7.5 percent of the **surfactant** selected from i. alkoxylated alcohols having the structure R.sub.5--(OCH.sub.2CH.sub.2)y--OH wherein R.sub.5 is a branched or unbranched alkyl group having about 6 carbon atoms to about 22 carbon atoms and y is between about 10 and about 100; ii. alkoxylated alkyl phenols having the structure ##STR17## wherein R.sub.6 is a branched or unbranched alkyl group having about 6 carbon atoms to about 22 carbon atoms and z is between about 10 and about 120; or iii. mixtures thereof.

24. A method of repelling insects from a host comprising topically applying to the host an **insect repellant** composition, said composition comprising: a. from about 6 to about 30 percent of **insect repellant** active material, said active material containing a functionality selected from ester, amide, urethane or combinations thereof; b. from about 5 to about 30 percent of alcohol selected from i. ethanol; ii. isopropanol; iii. a glycol monoalkyl ether, said alkyl having from about 1 carbon atom to about 4 carbon atoms; iv. a glycol containing from about 3 carbon atoms to about 6 carbon atoms; v. oligomers of ethylene glycol or propylene glycol; or vi. mixtures thereof; and c. from about 1 to about 10 percent by weight of **surfactant**.

25. The method of claim 24 wherein A. the **insect repellant** active material is selected from: a. N,N-diethyltoluamide, b. one or more compounds of the formula ##STR18## wherein R.sub.1 is a branched or unbranched alkyl group having about 1 carbon atom to about 6 carbon atoms; R.sub.2 is H, methyl or ethyl; R.sub.3 is a branched or unbranched alkyl or alkoxy group having from about 1 carbon atom to about 8 carbon atoms; and X is a --CN or a --COOR.sub.4 group, wherein R.sub.4 is a branched or unbranched alkyl group having from about 1 carbon atom to about 6 carbon atoms; c. one or more natural or synthetic pyrethroids; or d. mixtures thereof; B. the alcohol is a glycol selected from propylene glycol, butylene glycol, pentylene glycol, hexylene glycol, oligomers of ethylene glycol, oligomers of propylene glycol or mixtures thereof; and C. the **surfactant** is a nonionic **surfactant** selected from alkoxylated alcohols, alkoxylated alkyl phenols, alkoxylated acids, alkoxylated amides, alkoxylated amines, alkoxylated sugar derivatives, alkoxylated derivatives of natural oils or waxes, polyoxyethylene polyoxypropylene block copolymers or mixtures thereof.

26. The method of claim 25 wherein a. the **insect repellant** active material is selected from N,N-diethyltoluamide, ethyl 3-(N-butylacetamido)propionate or mixtures thereof; b. the alcohol is a glycol selected from propylene glycol, butylene glycol, pentylene glycol, hexylene glycol, oligomers of ethylene glycol, oligomers of propylene glycol or mixtures thereof; and c. the **surfactant** is selected from i. alkoxylated alcohols having the structure R.sub.5--(OCH.sub.2CH.sub.2)y--OH wherein R.sub.5 is a branched or unbranched alkyl group having about 6 carbon atoms to about

22 carbon atoms and y is between about 10 and about 100; ii. alkoxylated alkyl phenols having the structure ##STR19## wherein R.sub.6 is a branched or unbranched alkyl group having about 6 carbon atoms to about 22 carbon atoms and z is between about 10 and about 120; or iii. mixtures thereof.

27. A method of formulating an **insect repellant** composition comprising: a. providing an **insect repellant** active material; b. admixing an alcohol with the **insect repellant** active material; c. admixing a **surfactant** with the product of step b; d. admixing water with the product of step c.

28. The method of claim 27 which further comprises the step of admixing other components selected from **thickeners**, buffering agents, chelating agents or fragrances.

29. The method of claim 27 wherein the buffering and chelating agents are pre-dissolved in the water added in step d.

30. A use of the composition of claim 1 as an **insect repellant**.

L18 ANSWER 2 OF 29 USPATFULL
AN 2001:4254 USPATFULL
TI Synergistically UV-photoprotecting triazine/silicone compositions
IN Allard, Delphine, Colombes, France
Gombert, Christele, Saint Gratien, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 6171579 B1 20010109
AI US 1999-258852 19990226 (9)
PRAI FR 1998-2416 19980227
DT Patent
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 688
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to novel cosmetic and/or dermatological compositions, in particular for photoprotecting the skin and/or the hair, characterized in that they comprise, in a cosmetically acceptable support in particular of oil-in-water type, (i) as first screening agent, at least one specific 1,3,5-triazine derivative, and (ii) as second screening agent, a silicon derivative containing a benzotriazole function, the said first and second screening agents being present in the said compositions in an amount which is effective for producing synergistic activity with respect to the sun protection factors imparted.

Application to protecting the skin and the hair against the effects of ultraviolet radiation.

CLM What is claimed is:
1. A topically applicable cosmetic/dermatological sunscreen composition suited for the UV-photoprotection of human skin and/or hair, comprising UV-photoprotecting SPF-synergistically effective amounts of (i) at least one 1,3,5-triazine UV-screening compound having the structural formula ##STR14## in which X.sub.1, X.sub.2, X.sub.3, which may be identical or different, are each an oxygen atom or a radical --NR--, wherein the radicals R, which may be identical or different, are each a hydrogen

atom, or a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; R.sub.1, R.sub.2 and R.sub.3, which may be identical or different, are each a hydrogen atom, an alkali metal, an ammonium radical optionally substituted with one or more alkyl or hydroalkyl radicals, a linear or branched C.sub.1 -C.sub.18 alkyl radical, a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals, a polyoxyethylenated radical comprising from 1 to 6 ethylene oxide units and in which the OH endgroup is methylated, or a radical having one of the formulae (II), (III) or (IV) below: ##STR15## in which R.sub.4 is a hydrogen atom or a methyl radical; R.sub.5 is a C.sub.1 -C.sub.9 alkyl radical; n is an integer ranging from 0 to 3; m is an integer ranging from 1 to 10; A is a C.sub.4 -C.sub.8 alkyl radical or a C.sub.5 -C.sub.8 cycloalkyl radical; B is a linear or branched C.sub.1 -C.sub.8 alkyl radical, a C.sub.5 -C.sub.8 cycloalkyl radical, an aryl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; and R.sub.6 is a hydrogen atom or a methyl radical; and (ii) at least one benzotriazole-substituted silicon UV-screening compound which comprises at least one structural unit having the formula (1): O.sub.(3-8)/2 Si(R.sub.7).sub.a -G (1) in which R.sub.7 is an optionally halogenated C.sub.1 -C.sub.10 alkyl radical, or a phenyl radical, or a trimethylsilyloxy radical; a is an integer ranging from 0 to 3, inclusive; and G is a monovalent radical directly bonded to a silicon atom, and which has the formula (2): ##STR16## in which the radicals Y, which may be identical or different, are each a C.sub.1 -C.sub.8 alkyl radical, a halogen atom, or a C.sub.1 -C.sub.4 alkoxy radical, with the proviso that, in the latter case, two adjacent radicals Y on the same aromatic ring member can together form an alkylidenedioxy group in which the alkylidene moiety has 1 or 2 carbon atoms; X is O or NH; Z is a hydrogen atom or a C.sub.1 -C.sub.4 alkyl radical; n is an integer ranging from 0 to 3, inclusive; m is 0 or 1; and p is an integer ranging from 1 to 10, inclusive; formulated into a topically applicable, cosmetically/dermatologically acceptable support therefor.

2. The cosmetic/dermatological sunscreen composition as defined by claim 1, wherein formula (I), X.sub.1, X.sub.2 and X.sub.3 are identical and each is an oxygen atom; R.sub.1 is a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals, or a radical of formula (II), (III) or (IV) in which B is a C.sub.1 -C.sub.4 alkyl radical, and R.sub.6 is a methyl radical; R.sub.2 and R.sub.3, which may be identical or different, are each a hydrogen atom, an alkali metal, an ammonium radical optionally substituted with one or more alkyl or hydroxyalkyl radicals, a linear or branched C.sub.1 -C.sub.18 alkyl radical, a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals, or a radical of formula (II), (III) or (IV) in which B is a C.sub.1 -C.sub.4 alkyl radical, and R.sub.6 is a methyl radical.

3. The cosmetic/dermatological sunscreen composition as defined by claim 1, wherein formula (I), X.sub.1 is an oxygen atom; X.sub.2 is an --NH-- radical or an oxygen atom; X.sub.3 is an --NH-- radical; R.sub.3 is a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; R.sub.1 is a hydrogen atom, an alkali metal, an ammonium radical, a radical of formula (IV), a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; with the proviso that, if X.sub.2 is an --NH-- radical, then R.sub.2 is a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; and with the further proviso that, if X.sub.2 is an oxygen atom, then R.sub.2 is

hydrogen atom, an alkali metal, an ammonium radical, a radical of formula (IV), a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals.

4. The cosmetic/dermatological sunscreen composition as defined by claim 1 wherein formula (I), X.sub.1, X.sub.2 and X.sub.3 are each an --NR-- radical; the radicals R, which may be identical or different, are each a hydrogen atom, or a linear or branched C.sub.1 -C.sub.18 alkyl radical, or a C.sub.5 -C.sub.12 cycloalkyl radical optionally substituted with one or more C.sub.1 -C.sub.4 alkyl radicals; and R.sub.1, R.sub.2 and R.sub.3, which may be identical or different, are each a hydrogen atom or a radical R.

5. The cosmetic/dermatological sunscreen composition as defined by claim 1, said at least one 1,3,5-triazine UV-screening compound (I) having the formula: ##STR17## in which R' is a 2-ethylhexyl radical and R is a tert-butyl radical.

6. The cosmetic/dermatological sunscreen composition as defined by claim 1, said at least one 1,3,5-triazine UV-screening compound (I) having the formula: ##STR18## in which R' is a 2-ethylhexyl radical.

7. The cosmetic/dermatological sunscreen composition as defined by claim 1, comprising from 0.5% to 20% by weight of said at least one 1,3,5-triazine UV-screening compound (i).

8. The cosmetic/dermatological sunscreen composition as defined by claim 7, comprising from 1% to 10% by weight of said at least one 1,3,5-triazine UV-screening compound (i).

9. The cosmetic/dermatological sunscreen composition as defined by claim 1, said at least one benzotriazole-substituted silicon UV-screening compound (ii) having one of the structural formulae (5) or (6): ##STR19## ##STR20## in which the radicals R.sub.7, which may be identical or different, are each a C.sub.1 -C.sub.10 alkyl, phenyl, 3,3,3-trifluoropropyl or trimethylsilyloxy radical, at least 80%, in numerical terms, of the radicals R.sub.7 being methyl radicals; the radicals D, which may be identical or different, are each a radical R.sub.7 or a radical G; r is an integer ranging from 0 to 50, inclusive, and s is an integer ranging from 0 to 20, inclusive, with the proviso that, if s=0, at least one of the two radicals D is a radical G; u is an integer ranging from 1 to 6, inclusive, and t is an integer ranging from 0 to 10, inclusive, with the proviso that t+u is equal to or greater than 3; and G is a monovalent radical directly bonded to a silicon atom and having the formula (2).

10. The cosmetic/dermatological sunscreen composition as defined by claim 9, said at least one benzotriazole-substituted silicon UV-screening compound (ii) having the structural formula (5).

11. The cosmetic/dermatological sunscreen composition as defined by claim 9, said at least one benzotriazole-substituted silicon UV-screening compound (ii) having the structural formula (6).

12. The cosmetic/dermatological sunscreen composition as defined by claim 9, said at least one benzotriazole-substituted silicon UV-screening compound (ii) having the structural formula (7): ##STR21## in which 0.ltoreq.r.ltoreq.10; 1.ltoreq.s.ltoreq.10; and E is the divalent radical: ##STR22##

13. The cosmetic/dermatological sunscreen composition as defined by claim 12, said at least one benzotriazole-substituted silicon

UV-screening compound (ii) having the structural formula: ##STR23##

14. The cosmetic/dermatological sunscreen composition as defined by claim 9, comprising from 0.1% to 20% by weight of said at least one benzotriazole-substituted silicon UV-screening compound (ii).

15. The cosmetic/dermatological sunscreen composition as defined by claim 14, comprising from 0.2% to 15% by weight of said at least one benzotriazole-substituted silicon UV-screening compound (ii).

16. The cosmetic/dermatological sunscreen composition as defined by claim 1, formulated as an emulsion, cream, gel, milk, cream-gel, powder, solid, stick, suspension, mousse, **spray**, or vesicle dispersion.

17. The cosmetic/dermatological sunscreen composition as defined by claim 16, formulated as an oil-in-water emulsion.

18. The cosmetic/dermatological sunscreen composition as defined by claim 16, comprising a make-up product.

19. The cosmetic/dermatological sunscreen make-up product as defined by claim 18, comprising an epidermal treatment cream, a foundation, a lipstick, an eyeshadow, a blusher, a mascara, or an eyeliner.

20. The cosmetic/dermatological sunscreen composition as defined by claim 16, comprising a shampoo, a hair lacquer, a rinse, a hair styling/treating lotion or gel, or a hair reshaping, straightening, dyeing or bleaching formulation.

21. The cosmetic/dermatological sunscreen composition as defined by claim 1, further comprising at least one other UV-A and/or UV-B screening agent.

22. The cosmetic/dermatological sunscreen composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

23. The cosmetic/dermatological sunscreen composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

24. The cosmetic/dermatological sunscreen composition as defined by claim 1, further comprising at least one cosmetically/dermatologically acceptable additive or adjuvant.

25. The cosmetic/dermatological sunscreen compositoin as define by claim 24, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, opacifying agent, stabilizing agent, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, perservative, **surfactant**, filler, sequestering agent, emollient, moisturizer, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, or mixture thereof.

26. a regime/regimen for protecting human skin and/or hair against the damaging effects of UV-irradiation, comprising topically applying thereon an effective UV-photoprotecting amount of the cosmetic/dermatological sunscreen composition as defined by claim 1.

27. A regime/regimen for protecting human skin and/or hair against the damaging effects of solar irradiation, comprising topically applying

thereon an effective solar radiation-photoprotecting amount of the cosmetic/dermatological sunscreen composition as defined by claim 1.

28. A regime/regimen for protecting the natural or artificial color of human hair against the damaging effects of UV-irradiation, comprising topically applying thereon an effective UV-photoprotecting, hair color-maintaining amount of the cosmetic/dermatological sunscreen composition as defined by claim 1.

L18 ANSWER 3 OF 29 USPATFULL
AN 2000:113504 USPATFULL
TI Compostion, barrier film, and method for preventing contact dermatitis
IN Toma, Joan Dalla Riva, Piscataway, NJ, United States
Karl, Curtis L., Somerset, NJ, United States
PA Hydromer, Inc., Branchburg, NJ, United States (U.S. corporation)
PI US 6110475 20000829
AI US 1998-46296 19980323 (9)
RLI Division of Ser. No. US 1997-845741, filed on 25 Apr 1997, now patented, Pat. No. US 5888520 which is a continuation-in-part of Ser. No. US 1996-642227, filed on 30 Apr 1996, now patented, Pat. No. US 5837266
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Ware, Todd D
LREP Hoffmann & Baron, LLP
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 874
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to a composition, and a method for preventing or reducing contact dermatitis. The composition contains a polysaccharide; a low molecular weight, synergistic saccharide; a solvent; and optionally an additive material.

The present invention is further a dermatologically-compatible barrier film for preventing and reducing contact dermatitis which contains a polysaccharide; a low molecular weight, synergistic saccharide; and optionally one or more additives. The dermatologically-compatible barrier film is formed of a composition containing a polysaccharide; a low molecular weight, synergistic saccharide; a solvent; and optionally an additive material. The composition is a skin care product in a form of a lotion, a gel or a cream that is applied to skin of mammals. Once applied, the solvent in the composition evaporates, and thereby leaving behind a dermatologically-compatible barrier film containing a polysaccharide; a low molecular weight, synergistic saccharide; and optionally an additive material.
CLM What is claimed is:
1. A dermatologically-compatible barrier film comprising: (1) a polysaccharide; (2) a low molecular weight, synergistic saccharide; and (3) optionally an additive agent.

2. The dermatologically-compatible barrier film of claim 1 further comprises an antimicrobial agent.

3. The dermatologically-compatible barrier film of claim 1, wherein said polysaccharide is a cellulose derivative.

4. The dermatologically-compatible barrier film of claim 1, wherein said cellulose is selected from the group consisting of methylcelluclose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxybutylcellulose, methylhydroxyethylcellulose, methylhydroxypropylcellulose, methylhydroxybutylcellulose,

hydroxyethylhydroxypropylcellulose, and ethylhydroxyethylcellulose.

5. The dermatologically-compatible barrier film of claim 1, wherein said polysaccharide is hydroxypropylcellulose.

6. The dermatologically-compatible barrier film of claim 1, wherein said synergistic saccharide is selected from the group consisting of unmodified monosaccharide, derivatized monosaccharide, unmodified disaccharide, derivatized disaccharide, hydrolyzed starch, and derivatized starch hydrolysate.

7. The dermatologically-compatible barrier film of claim 6, wherein said unmodified monosaccharide is selected from the group consisting of fructose, glucose, and mannose.

8. The dermatologically-compatible barrier film of claim 6, wherein said unmodified disaccharide is selected from the group consisting of sucrose and maltose.

9. The dermatologically-compatible barrier film of claim 6, wherein said derivatized monosaccharide is selected from the group consisting of ethoxylates of methyl glucoside, propoxylates of methyl glucoside, propoxylates of methyl glucoside disterate, and methyl glucose doleate.

10. The dermatologically-compatible barrier film of claim 6, wherein said derivatized monosaccharide is about 20 mole ethoxylate of methyl glucoside.

11. The dermatologically-compatible barrier film of claim 6, wherein said hydrolyzed starch is selected from the group consisting of maltodextrin and **corn syrup** solids.

12. The dermatologically-compatible barrier film of claim 1, wherein said additive agent is selected from the group consisting of colorants, fragrances, sunscreen, **insect repellants**, **surfactants**, flow modifiers, cleansers, moisturizers, water resistant compounds, salts, natural extracts, exfoliants, astringents, antioxidants, vitamins, self-tanning gents, emulsifiers, emollients, enzymes, keratolytics, antipruitics, analgesics, anesthetics, antihistamines, antimicrobial agents, **preservatives**, antibiotics, antiseptics, antifunals, antivirals, and mixtures thereof.

13. The dermatologically-compatible barrier film of claim 1, wherein said polysaccharide is in the amount of 14 wt. % to 87 wt. % wherein said low molecular weight, synergistic saccharide is in the amount of 5 wt. % to 63 wt. %, and optionally wherein said additive agent is in the amount of about 37 wt. % to about 74 wt. %.

14. The dermatologically-compatible barrier film of claim 2, wherein said antimicrobial agent is selected from the group consisting of triclosan, hexetidine, chlorhexidine salts, 2-bromo-2-nitropropane-1,3-diol, hexyresorcinol, benzalkonium chloride, cetylpyridinium chloride, alkylbenzyldimethylammonium chlorides, iodine, phenol derivatives, povidone-iodine, parabens, hydantoins, hydantoin derivatives, phenoxyethanol, cis isomer of 1-(3-chloroallyl)-3,5,6-triaza-1-axoniaadamantane chloride, diazolidinyl urea, benzethonium chloride, methylbenzethonium chloride, and mixtures thereof.

15. The dermatologically-compatible barrier film of claim 2, wherein said antimicrobial agent is selected from the group consisting of triclosan, cis isomer of 1-(3-chloroallyl)-3,5,6-triaza-1-azoniaadamantane chloride, hydantoins, hydantoin derivatives, and mixtures thereof.

16. The dermatologically-compatible barrier film of claim 2, wherein said polysaccharide is in the amount of 14 wt. % to 87 wt. %, wherein said low molecular weight, synergistic saccharide is in the amount of 5 wt. % to 63 wt. %, wherein said antimicrobial agent is in the amount of about 0.1 wt. % to about 60 wt. %, and optionally wherein said additive agent is in the amount of about 37 wt. % to about 74 wt. %.

L18 ANSWER 4 OF 29 USPATFULL
AN 2000:97980 USPATFULL
TI Photoprotective/cosmetic compositions comprising 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and salicylate solvents therefor
IN Hansenne, Isabelle, Paris, France
Van Leeuwen, Victoria, Paris, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 6096294 20000801
AI US 1997-775624 19970102 (8)
RLI Continuation of Ser. No. US 1995-463508, filed on 5 Jun 1995, now abandoned
PRAI FR 1994-6831 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 452
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) at least one homomenthyl and/or octyl salicylate solvent for the triazine sunscreen compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.
CLM What is claimed is:
1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) at least one homomenthyl and/or octyl salicylate solvent for said triazine sunscreen compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, the amount of said at least one homomenthyl and/or octyl salicylate solvent (ii) being sufficient to essentially completely dissolve the total amount of said triazine sunscreen compound (i).

3. The sunscreen/cosmetic composition as defined by claim 1, substantially devoid of any solvent for said triazine sunscreen compound (i), other than said at least one homomenthyl and/or octyl salicylate solvent (ii).

4. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.5% to 15% by weight of said triazine compound (i).

5. The sunscreen/cosmetic composition as defined by claim 4, comprising from 0.5% to 25% by weight of said at least one homomenthyl and/or octyl

salicylate solvent (ii).

6. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

8. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

9. The sunscreen/cosmetic composition as defined by claim 8, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

10. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

11. The sunscreen/cosmetic composition as defined by claim 10, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

13. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

14. The sunscreen/cosmetic composition as defined by claim 13, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

15. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

17. The sunscreen/cosmetic composition as defined by claim 16, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

18. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

19. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

20. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

21. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 5 OF 29 USPATFULL
AN 2000:70891 USPATFULL
TI Oxa acids and related compounds for treating skin conditions
IN Ptchelintsev, Dmitri, Mahwah, NJ, United States
Scancarella, Neil D., Wyckoff, NJ, United States
Kalafsky, Robert, Ogdensburg, NJ, United States
PA Avon Products, Inc., New York, NY, United States (U.S. corporation)
PI US 6071962 20000606
AI US 1998-152574 19980914 (9)
RLI Division of Ser. No. US 1996-658089, filed on 4 Jun 1996, now patented, Pat. No. US 5847003
DT Utility
FS Granted
EXNAM Primary Examiner: Spivack, Phyllis G.
LREP Ohlandt, Greeley, Ruggiero & Perle, LLP
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 897
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed the use of compounds of Formula (I) depicted below, as active principals for treating skin conditions, compositions containing these compounds, and methods of treating skin conditions using these compounds and compositions. ##STR1## where R.sub.4 is (CR.sub.5 R.sub.6 --CR.sub.7 R.sub.8 --X.sub.1).sub.n --CR.sub.9 R.sub.10 R.sub.11 ; n is an integer from 1 to 18; R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11 are, independently, hydrogen or non-hydrogen substituents comprising alkyls, alkenyls, oxa-alkyls, aralkyls and aryls; and X, X.sub.1, Y and Z are, independently, oxygen, amine or sulfur, with preferred compounds being those in which X, X.sub.1, Y and Z are oxygen, and R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11 are hydrogen.
CLM What is claimed is:
1. A topical composition comprising a suitable topical vehicle and a compound of Formula (I): ##STR4## wherein R.sub.4 is (CR.sub.5 R.sub.6 --CR.sub.7 R.sub.8 --X.sub.1)n--CR.sub.9 R.sub.10 R.sub.11 ; n is an integer from 1 to 18; R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11 are, independently, hydrogen or substituents selected from the group consisting of alkyls, alkenyls, oxa-alkyls, aralkyls, aryls, cycloalkyls and cycloalkenyls; and X, X.sub.1, Y and Z, are, independently, O or S, with the proviso that at least one of X, X.sub.1, Y or Z is sulfur.

2. The composition of claim 1 wherein said compound of Formula (I) comprises about 0.1 to about 95 wt % of said composition, and wherein n in said compound is an integer from 2 to 12.

3. The composition of claim 1 further comprising a mixture of two or more different compounds of Formula (I).

4. The composition of claim 1, wherein said subtituents are selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl,

isobutyl, hexyl, heptyl, octyl, nonyl, dodecanyl, methoxy, ethoxy, propoxy, butoxy, cyclohexenyl, hydroxymethyl, hydroxyethyl, hydroxypropyl, cyclobutyl and cyclohexyl.

5. The composition of claim 1 wherein R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11 of said compound are each hydrogen.

6. The composition of claim 1 wherein X, X.sub.1, Y and Z of said compound are each sulfur.

7. The composition of claim 1, wherein said compound is selected from the group consisting of 3,6,9-trithiodecanoic acid; 9,12-dithio-3,6-dioxatridecanoic acid; and a mixture thereof.

8. The composition of claim 1 further comprising at least one active selected from the group consisting of antifungals, vitamins, sunscreens, retinoids, antiallergenic agents, depigmenting agents, anti-inflammatory agents, anesthetics, **surfactants**, moisturizers, exfolients, emulsifiers, stabilizers, **preservatives**, antiseptics, emollients, **thickeners**, lubricants, humectants, chelating agents, fragrances, colorants, skin penetration enhancers, self-tanning agents, anti-mycobacterial agents, topical analgesics, lipidic compounds, H1 and/or H.sub.2 antihistamines, natural extracts, antioxidants, bio-flavonoids, skin cooling compounds, **insect repellents**, and mixtures thereof.

9. The composition of claim 8, wherein the bio-flavonoid is selected from the group consisting of quercetin, rutin, daidzein, genistein, ferrulic acid derivatives, ethyl ferrulate, sodium ferrulate, 6-hydroxy-2,5,7,tetramethylchroman-2-carboxylic acid, and mixtures thereof.

10. The composition of claim 8, wherein the antioxidant is selected from the group consisting of gallic acid derivatives, uric acid, reductic acid, tannic acid, rosmarinic acid, catechins, and mixtures thereof.

11. The composition of claim 8, wherein the natural extract is selected from the group consisting of rosemary extract, sunflower oil, soybean oil, aloe vera extract, an extract from genus Rubis, an extract from genus Commiphom, willow bark extract, matricarria flower extract, arnica flower extract, comfrey root extract, fenugreek seed extract, and mixtures thereof.

12. The composition of claim 1, wherein said composition comprises up to about 60 wt % of said compound of Formula (I) and has a pH of less than 7.0.

13. The composition of claim 12, wherein said topical vehicle comprises up to about 95 wt % of water; up to about 30 wt % of an emollient; and up to about 20 wt % of an emulsifier.

14. The composition of claim 1, wherein said topical vehicle is selected from the group consisting of gels, lotions and creams.

15. The composition of claim 14, wherein said topical vehicle is comprised of an ingredient selected from the group consisting of ammonium hydroxide, cetearyl alcohol/Ceteareth-20, EDTA, glycerin, glyceryl monostearate, hydroxyethyl cellulose, imidazolidilyl urea, methyl paraben, myristyl myristate, octyl palmitate, propylene glycol, and mixtures thereof.

16. A method for treating skin conditions caused by, accompanied with or

exacerbated by abnormal desquamation, comprising applying to said skin an effective amount of a compounds compound of Formula (I): ##STR5## wherein R.sub.4 is (CR.sub.5 R.sub.6 --CR.sub.7 R.sub.8 --X.sub.1).sub.n --CR.sub.9 R.sub.10 R.sub.11 ; n is an integer from 1 to 18; R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10 and R.sub.11 are, independently, hydrogen or substituents selected from the group consisting of alkyls, alkenyls, oxa-alkyls, aralkyls, aryls, cycloalkyls and cycloalkenyls; and X, X.sub.1, Y and Z, are, independently, O or S, with the proviso that at least one of X, X.sub.1, Y or Z is sulfur.

17. The method of claim 16 wherein said compound is combined with a suitable topical vehicle in a topical composition.

18. The method of claim 17 wherein said compound of Formula (I) comprises about 0.1 to about 95 wt % of said composition, and wherein n in said compound is an integer from 2 to 12.

19. The method of claim 16 further comprising, applying to said skin an effective amount of a mixture of two or more different compounds of Formula (I).

20. The method of claim 16, wherein said substituents of said compound are selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, isobutyl, hexyl, heptyl, octyl, nonyl, dodecanyl, methoxy, ethoxy, propoxy, butoxy, cyclohexenyl, hydroxymethyl, hydroxyethyl, hydroxypropyl, cyclobutyl and cyclohexyl.

21. The method of claim 16 wherein R.sub.1, R.sub.2, R.sub.3, R.sub.5, R.sub.6, R.sub.7, R.sub.8, R.sub.9, R.sub.10, and R.sub.11 of said compound are each hydrogen.

22. The method of claim 16 wherein X, X.sub.1, Y and Z of said compound are each sulfur.

23. The method of claim 16, wherein said compound is selected from the group consisting of 3,6,9-trithiodecanoic acid; 9,12-dithio-3,6-dioxatridecanoic acid; and a mixture thereof.

24. The method of claim 16, further comprising at least one active selected from the group consisting of antifungals, vitamins, sunscreens, retinoids, antiallergenic agents, depigmenting agents, anti-inflammatory agents, anesthetics, **surfactants**, moisturizers, exfolients, emulsifiers, stabilizers, **preservatives**, antiseptics, emollients, **thickeners**, lubricants, humectants, chelating agents, fragrances, colorants, skin penetration enhancers, self-tanning agents, anti-mycobacterial agents, topical analgesics, lipidic compounds, H1 and/or H2 antihistamines, natural extracts, antioxidants, bio-flavonoids, skin cooling compounds, **insect repellents**, and mixtures thereof.

25. The method of claim 24, wherein the bio-flavonoid is selected from the group consisting of quercetin, rutin, daidzein, genistein, ferrulic acid derivatives ethyl ferrulate, sodium ferrulate, 6-hydroxy-2,5,7,tetramethylchroman-2-carboxylic acid, and mixtures thereof.

26. The method of claim 24, wherein the antioxidant is selected from the group consisting of gallic acid derivatives, uric acid, reductic acid, tannic acid, rosmarinic acid, catechins, and mixtures thereof.

27. The method of claim 24, wherein the natural extract is selected from the group consisting of rosmary extract, sunflower oil, soybean oil, aloe vera extract, an extract from genus Rubis, an extract from genus

Commiphom, willow bark extract, matricarria flower extract, arnica flower extract, comfrey root extract, fenugreek seed extract, and mixtures thereof.

28. The method of claim 16, wherein said skin conditions to be treated are selected from the group consisting of dry skin, ichthyosis, palmar and plantar hyperkeratoses, dandruff, lichen simplex chronicus, Dariers disease, keratoses, lentigines, age spots, melasmas, blemished skin, acne, psoriasis, eczema, pruritis, inflammatory dermatoses, striae distensae, warts, calluses, signs of dermatological aging, skin wrinkles, fine wrinkles around the mouth area, irregular pigmentation, sallowness, loss of skin resilience and elasticity, disorders associated with nails, cuticles and hair such as ingrown hair, folliculitis and Pseudo-folliculitis barbae.

L18 ANSWER 6 OF 29 USPATFULL
AN 2000:24303 USPATFULL
TI Photoprotective cosmetic/dermatological compositions comprising synergistic admixture of sunscreen compounds
IN Hansenne, Isabelle, Paris, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 6030629 20000229
AI US 1998-28359 19980224 (9)
PRAI FR 1997-2162 19970224
DT Utility
FS Granted
EXNAM Primary Examiner: Russel, Jeffrey E.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced SPF photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise synergistically effective amounts of (i) particular benzotriazole-substituted silicon compounds and (ii) particular sulfonic/benzimidazole compounds, formulated into appropriate vehicles, diluents or carriers therefor, advantageously formulated as oil-in-water emulsions.
CLM What is claimed is:
1. A topically applicable sunscreen composition suited for the photoprotection of human skin and/or hair, comprising photoprotecting synergistically effective amounts of (i) at least one silicon compound containing a benzotriazole functional group and which comprises at least one structural unit of formula (1): O.sub.(3-a)/2 Si(R).sub.a --A (1) in which R is an optionally halogenated C.sub.1 -C.sub.10 alkyl radical, or a phenyl or trimethylsilyloxy radical; a is an integer ranging from 0 to 3, inclusive; and the symbol A is a monovalent radical directly bonded to a silicon atom, having the structural formula (2): ##STR13## in which the radicals Y, which may be identical or different, are each a C.sub.1 -C.sub.8 alkyl radical, a halogen atom, or a C.sub.1 -C.sub.4 alkoxy radical, with the proviso that, in the latter instance, two adjacent radicals Y on the same aromatic ring member can together form an alkylidenedioxy moiety in which the alkylidene group has 1 or 2 carbon atoms; X is O or NH; Z is hydrogen or a C.sub.1 -C.sub.4 alkyl radical; n is an integer ranging from 0 to 3, inclusive; m is 0 or 1; p is an integer ranging from 1 to 10, inclusive; and (ii) at least one sulfonic sunscreening derivative of benzimidazole C having the formula (3): ##STR14## in which R' is a hydrogen atom, a linear or branched C.sub.1 -C.sub.8 alkyl or alkoxy radical, or a radical of formula (4)

below: ##STR15## wherein the molar ratio of said at least one compound (i) to said at least one compound (ii) ranges from 1/20 to 10/3.

2. The sunscreen composition as defined by claim 1, wherein the molar ratio of said at least one compound (i) to said at least one compound (ii) ranges from 1/10 to 5/2.

3. The sunscreen composition as defined by claim 1, wherein the molar ratio of said at least one compound (i) to said at least one compound (ii) ranges from 2/5 to 3/5.

4. The sunscreen composition as defined by claim 1, said at least one silicon/benzotriazole compound (i) having the following structural formulae (5) or (6): ##STR16## in which the radicals R, which may be identical or different, are each a C.sub.1 -C.sub.10 alkyl, phenyl, 3,3,3-trifluoropropyl or trimethylsilyloxy radical, at least 80% by number of said radicals R being methyl radicals; the radicals B, which may be identical or different, are each a radical R or a radical A; r is an integer ranging from 0 to 50, inclusive; s is an integer ranging from 0 to 20, inclusive, with the proviso that if s=0, then at least one of the two radicals B is a radical A; u is an integer ranging from 1 to 6, inclusive; and t is an integer ranging from 0 to 10, inclusive, with the proviso that t+u is equal to or greater than 3; and the symbol A is as defined in formula (2).

5. The sunscreen composition as defined by claim 4, said at least one silicon/benzotriazole compound (i) having the structural formula (7): ##STR17## in which 0.ltoreq.r.ltoreq.10; 1.ltoreq.s.ltoreq.10; and D is the divalent radical: ##STR18##

6. The sunscreen composition as defined by claim 1, said at least one sulfonic/benzimidazole compound (ii) comprising 2-phenylbenzimidazole-5-sulfonic acid.

7. The sunscreen composition as defined by claim 1, said at least one silicon/benzotriazole compound (i) having the structural formula:

8. The sunscreen composition as defined by claim 7, wherein the ratio by weight of said at least one silicon/benzotriazole compound (i) to said at least one sulfonic/benzimidazole compound (ii) ranges from 1/10 to 6/1.

9. The sunscreen composition as defined by claim 7, wherein the ratio by weight of said at least one silicon/benzotriazole compound (i) to said at least one sulfonic/benzimidazole compound (ii) ranges from 1/4 to 4/1.

10. The sunscreen composition as defined by claim 7, wherein the ratio by weight of said at least one silicon/benzotriazole compound (i) to said at least one sulfonic/benzimidazole compound (ii) is about 1.

11. The sunscreen composition as defined by claim 1, comprising from 0.1% to 20% by weight of said at least one silicon/benzotriazole compound (i).

12. The sunscreen composition as defined by claim 11, comprising from 0.2% to 15% by weight of said at least one silicon/benzotriazole compound (i).

13. The sunscreen composition as defined by claim 11, comprising from 0.1% to 10% by weight of said at least one sulfonic/benzimidazole compound (ii).

14. The sunscreen composition as defined by claim 12, comprising from 0.1% to 5% by weight of said at least one sulfonic/benzimidazole compound (ii).

15. The sunscreen composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

16. The sunscreen composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

17. The sunscreen composition as defined by claim 1, further comprising at least one additive or adjuvant which comprises a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, u-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

18. The sunscreen composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid, stick, foam or **spray**.

19. The sunscreen composition as defined by claim 1, comprising a makeup.

20. The sunscreen composition as defined by claim 1, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

21. The sunscreen composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

22. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen composition as defined by claim 1.

23. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen composition as defined by claim 1.

L18 ANSWER 7 OF 29 USPATFULL
AN 1999:128100 USPATFULL
TI Photoprotective/cosmetic compositions comprising synergistic admixture of sunscreen compounds
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5968481 19991019
AI US 1995-463507 19950605 (8)
PRAI FR 1994-6828 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.

CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise a photoprotecting synergistically effective amount of (i) 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate, in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising a photoprotecting synergistically effective amount of (i) 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate, in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.1% to 10% by weight of said triazine compound (i).

3. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 5% by weight of said triazine compound (i).

4. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 15% by weight of said diphenylacrylate compound (ii).

5. The sunscreen/cosmetic composition as defined by claim 3, comprising from 1% to 10% by weight of said diphenylacrylate compound (ii).

6. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

8. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

9. The sunscreen/cosmetic composition as defined by claim 8, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

10. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

11. The sunscreen/cosmetic composition as defined by claim 10, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

13. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

14. The sunscreen/cosmetic composition as defined by claim 13, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

15. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

17. The sunscreen/cosmetic composition as defined by claim 16, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

18. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

19. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

20. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

21. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 8 OF 29 USPATFULL
AN 1999:124474 USPATFULL
TI Insect repellent composition and method for inhibiting the transmission and treatment of symptoms of vector-borne diseases
IN Petrus, Edward J., Austin, TX, United States
PA Advanced Medical Instruments, Austin, TX, United States (U.S. corporation)
PI US 5965137 19991012
AI US 1998-192421 19981116 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Witz, Jean C.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 439
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A topical composition for the delivery of bio-affecting agents through the protective outer layer of skin into the underlying tissues and into the general circulation to prevent the causes and symptoms of vector-borne diseases. The transdermal penetration is achieved by the use of an essential volatile oil with insect repellent capabilities,

such as eucalyptus oil. The bio-affective agents may be a combination of a zinc salt and form of vitamin A. A zinc salt may also be used for photoprotective purposes. The topical composition can be formulated as a solution, suspension, cream, ointment, gel, film or **spray**.

CLM What is claimed is:

1. A topical composition for inhibiting the transmission of vector-borne diseases and for the treatment of symptoms of vector-borne diseases in mammals consisting essentially of (a) an effective amount of an essential volatile oil with **insect repellent** and transdermal penetration capabilities; (b) an effective amount of a zinc salt; (c) an effective amount of vitamin A; and (d) one or more ingredients selected from the group consisting of antimalarial medications, fragrances, **preservatives**, antioxidants, gelling agents, **thickening** agents, stabilizers, **surfactants**, emollients, coloring agents, aloe vera, waxes and penetration enhancers.

2. The topical composition of claim 1, wherein said essential volatile oil is selected from the group consisting of: almond bitter oil, anise oil, basil oil, bay oil, caraway oil, cardamon oil, cedar oil celery oil, chamomile oil, cinnamon oil, citronella oil, clove oil, coriander oil, cumin oil, dill oil, eucalyptus oil, fennel oil, ginger oil, grapefruit oil, lemon oil, line oil, mint oil, parsley oil, peppermint oil, pepper oil, rose oil, spearmint oil, menthol, sweet orange oil, thyme oil, turmeric oil, and oil of wintergreen.

3. The topical composition of claim 1, wherein the zinc salt is selected from the group consisting of zinc sulfate, zinc chloride, zinc acetate, zinc phenol sulfonate, zinc borate, zinc bromide, zinc nitrate, zinc glycerophosphate, zinc benzoate, zinc carbonate, zinc citrate, zinc hexafluorosilicate, zinc diacetate trihydrate, zinc oxide, zinc peroxide, zinc salicylate, zinc silicate zinc stannate, zinc tannate, zinc titanate, zinc tetrafluoroborate, zinc gluconate, and zinc glycinate.

4. The topical composition of claim 1, wherein the vitamin A is selected from the group consisting of: retinoic acid, retinol, retinol, carotenoids, and beta-carotene.

5. The topical composition of claim 2, wherein said essential volatile oil represents 5 to 20 % by weight relative to the total composition.

6. The topical composition of claim 3, wherein the zinc salt represents 0.1 to 10 % by weight relative to the total composition.

7. The topical composition of claim 4, wherein the vitamin A represents 0.1 to 5 % by weight relative to the total composition.

8. The topical composition of claim 2, wherein the essential volatile oil is eucalyptus oil.

9. The topical composition of claim 3, wherein the zinc salt is zinc sulfate.

10. The topical composition of claim 4, wherein the vitamin A is retinol.

11. The topical composition as defined by claim 1, wherein the zinc salt also acts as a photoprotective agent.

12. The topical composition of claim 11, wherein the zinc salt is zinc oxide as a suspension of microfine particles.

13. The topical composition of claim 12, wherein the zinc oxide

represents 0.2 to 20% by weight of the total composition.

14. The topical composition of claim 1, wherein said composition is formulated as a solution, suspension, cream, ointment, gel, film or **spray**.

15. A method for inhibiting the transmission of vector-borne diseases and for the treatment of symptoms of vector-borne diseases comprising administering to a mammal in need thereof: a) an effective amount of an essential volatile oil with **insect repellent** and transdermal penetration capabilities, and b) an effective amount of one or more bioaffective agents selected from a group consisting of zinc salts and vitamin A.

L18 ANSWER 9 OF 29 USPATFULL
AN 1999:120922 USPATFULL
TI Method of treating the skin with organic acids in anhydrous microsphere delivery systems
IN Curtis, Ernest S., Milford, PA, United States
Kalafsky, Robert, Ogdensburg, NJ, United States
Kaplan, Elinor R., Paterson, NJ, United States
PA Avon Products, Inc., New York, NY, United States (U.S. corporation)
PI US 5962018 19991005
AI US 1998-69089 19980428 (9)
DT Utility
FS Granted
EXNAM Primary Examiner: Jarvis, William R. A.
LREP Ohlandt, Greeley, Ruggiero & Perle, LLP
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 515
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB There is provided a method of treating skin with a therapeutic, water-soluble organic acid. There is also provided an anhydrous composition containing the water-soluble organic acid is encapsulated into hydrophobic microspheres through which the organic acid can elute in the presence of water is applied to the skin. The composition is wet with water immediately prior to, or after the composition is applied to the skin.
CLM What is claimed is:
1. A therapeutic composition comprising: an anhydrous vehicle selected from the group consisting of powder, lotion, solid, cream and gel; at least one microsphere; and from about 20 wt %.% to about 30 wt. % of a water-soluble organic acid entrapped within said at least one microsphere wherein said at least one microsphere is formed of a non-polar copolymer of a carbamate and an acrylate, and wherein the addition of water to the composition facilitates the elution of said water-soluble organic acid from within said at least one microsphere to without said at least one microsphere.

2. The composition of claim 1, wherein said water-soluble organic acid is selected from the group consisting of alpha-hydroxy acids, beta-hydroxy acids, keto-acids, poly-hydroxy carboxylic acids, oxa acids, oxa-diacids and mixtures thereof.

3. A method of treating a skin or hair condition with a therapeutic, water-soluble organic acid, said method comprising: applying to the skin or hair an anhydrous composition that includes a water-soluble organic acid encapsulated in one or more microspheres through which said organic acid will elute in the presence of water; and wetting said composition with water immediately prior to, or after applying said composition to

the skin or hair, wherein said skin or hair condition is selected from the group consisting of dry skin, ichthyosis, palmar and plantar hyperkeratoses, dandruff, lichen simplex chronicus, Dariers disease, keratoses, lentigines, age spots, melasmas, blemished skin, acne, psoriasis, eczema, pruritis, inflammatory dermatoses, striae distensae, warts, calluses, ingrown hair, folliculitis, Pseudofolliculitis barbae, photoaging, fine wrinkles, irregular pigmentation, sallowness, loss of skin resilience and loss of elasticity, and wherein said microsphere is formed of a non-polar copolymer of a carbamate and an acrylate.

4. The method of claim 3, wherein said composition further comprises an anhydrous base material.

5. The method of claim 3, wherein said water-soluble organic acid is selected from the group consisting of alpha-hydroxy acids, beta-hydroxy acids, keto-acids, poly-hydroxy carboxylic acids, oxa acids, oxa di-acids and mixtures thereof in the form of free acids or salts thereof.

6. The method of claim 3, wherein said microspheres are formed of non-polar copolymer of a carbamate and an acrylate.

7. The method of claim 3, wherein said encapsulated water-soluble organic acid is from about 0.1 wt. % to about 70 wt. % of said composition.

8. The method of claim 7, wherein said encapsulated water-soluble organic acid is from about 0.1 wt. % to about 50 wt. % of said composition.

9. The method of claim 3, wherein said composition is in a form selected from the group consisting of dry powders, anhydrous solids, anhydrous lotions, anhydrous creams and anhydrous gels.

10. The method of claim 3, wherein said composition has a pH <7.

11. The method of claim 10, wherein said composition has a pH <5.

12. The method of claim 11, wherein said composition has a pH in a range from about 3.5 to about 4.0.

13. The method of claim 3, wherein said composition further comprises at least one additional agent selected from the group consisting of antifungals, vitamins, sunscreens, keratolytic agents, retinoids, antiallergenic agents, depigmenting agents, antiinflammatory agents, anaesthetics, **surfactants**, moisterizers, exfolients, emulsifiers, antioxidants, **insect repellents** sunscreen agents, stabilizers, **preservatives**, antiseptics, emollients, **thickeners**, lubricants, humectants, chelating agents, fragrances, colorants and skin penetration enhancers.

14. The composition of claim 1, wherein the composition is for topical application.

15. The composition of claim 1, wherein said water-soluble organic acid is selected from the group consisting of alpha-hydroxy acids, beta-hydroxy acids, keto-acids, di-alpha-hydroxy acids and poly-hydroxy carboxylic acids, derivatives of retinoic acid, poly-hydroxy carboxylic acids, oxa acids, oxa diacids, and mixtures thereof.

16. The method of claim 3, wherein said water-soluble organic acid is selected from the group consisting of alpha-hydroxy acids, beta-hydroxy acids, keto-acids, di-alpha-hydroxy acids and poly-hydroxy carboxylic

acids, derivatives of retinoic acid, poly-hydroxy carboxylic acids, oxa acids, oxa diacids and mixtures thereof.

17. The method of claim 3, wherein said water-soluble organic acid is a salt of said organic acid, and wherein said salt is derived by neutralization with a base selected from the group consisting of triethanolamine arginine, lysine, potassium hydroxide, sodium hydroxide, lithium hydroxide and ammonium hydroxide.

18. A method for preparing a topical composition useful for delivering a water-soluble organic acid to the skin using an anhydrous vehicle, said method comprising: encapsulating said water-soluble organic acid into one or more microsphere formed of a non-polar copolymer of a carbamate and an acrylate, and incorporating said one or more microspheres into an anhydrous vehicle to form an organic acid microsphere composition, and applying said organic acid microsphere composition to the skin; wherein the presence of water activates said water-soluble organic acid microsphere composition causing said organic acid to elute from said one or more microspheres.

19. The method of claim 18, wherein said water-soluble organic acid is selected from the group consisting of alpha-hydroxy acids, beta-hydroxy acids, keto-acids, di-alpha-hydroxy acids and poly-hydroxy carboxylic acids, derivatives of retinoic acid, poly-hydroxy carboxylic acids, oxa acids, oxa diacids, and mixtures thereof.

20. The method of claim 18, wherein said water-soluble organic acid is a salt of said water-soluble organic acid, and wherein said salt is derived by neutralization with a base selected from the group consisting of triethanolamine arginine, lysine, potassium hydroxide, sodium hydroxide, lithium hydroxide and ammonium hydroxide.

L18 ANSWER 10 OF 29 USPATFULL
AN 1999:109958 USPATFULL
TI UV-photoprotective dibenzoylmethane compositions comprising photostabilizing amounts of benzalmalonate silanes
IN Forestiér, Serge, Claye Souilly, France
Richard, Herve, Villepinte, France
Allard, Delphine, Colombes, France
Candau, Didier, Bievres, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5951968 19990914
AI US 1998-35758 19980306 (9)
PRAI FR 1997-2759 19970307
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 543
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable, stable, UV-photoprotective cosmetic/dermatological compositions well suited for the photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, comprise (a) an effective UV-photoprotecting amount of at least one dibenzoylmethane UV-sunscreen compound and (b) an effective dibenzoylmethane compound (a) photostabilizing amount of at least one benzalmalonate silane having the structural formula (I): ##STR1##
CLM What is claimed is:
1. A topically applicable sunscreen/cosmetic composition suited for the

UV-photoprotection of human skin and/or hair, comprising (a) an effective UV-photoprotecting amount of at least one dibenzoylmethane UV-sunscreen compound and (b) an effective dibenzoylmethane compound (a) photostabilizing amount of at least one benzalmalonate silane having the structural formula (I): ##STR13## in which R.sub.1, R.sub.2 and R.sub.3, which may be identical or different, are each an optionally halogenated C.sub.1 -C.sub.10 alkyl radical or a phenyl radical; R.sub.4 and R.sub.5, which may be identical or different, are each a hydrogen atom, a hydroxyl group, a C.sub.1 -C.sub.6 alkyl radical, a C.sub.1 -C.sub.6 alkoxy radical, or a trimethylsilyloxy radical; R.sub.6 and R.sub.7, which may be identical or different, are each a C.sub.1 -C.sub.8 alkyl radical; a is equal to 0 or 1; and Y is a divalent radical having one of the following formulae (1) to (4): ##STR14## wherein R.sub.8 is a hydrogen atom or a C.sub.1 -C.sub.5 alkyl radical, and 1 is an integer ranging from 1 to 10, inclusive, with the proviso that the group --Y--(O).sub.a -- and the two radicals R.sub.4 and R.sub.5 are variously bonded to the aromatic ring member in the para-position and in the two meta-positions with respect to the radical --CH.dbd.C--[(CO.sub.2 R.sub.6)](CO.sub.2 R.sub.7).

2. The sunscreen/cosmetic composition as defined by claim 1, formulated with a topically applicable, cosmetically/dermatologically acceptable vehicle, diluent or carrier therefor.

3. The sunscreen/cosmetic composition as defined by claim 1, wherein formula (I) at least one of the following conditions is satisfied: R.sub.1 is methyl; R.sub.2 is methyl or ethyl; R.sub.3 is methyl; Y is a divalent radical of formula (3) or (4) in which R.sub.8 is hydrogen or methyl and p is 1 or 2; a is 1; R.sub.4 is hydrogen or a methoxy radical; R.sub.5 is hydrogen; R.sub.6 is methyl or ethyl; R.sub.7 is methyl or ethyl; and/or the --Y--(O).sub.a -- group is bonded to the aromatic ring member in the para-position with respect to the --CH.dbd.C--[(CO.sub.2 R.sub.6)](CO.sub.2 R.sub.7) radical.

4. The sunscreen/cosmetic composition as defined by claim 1, said at least one benzalmalonate silane (I) having one of the following formulae (5), (6) or (7): ##STR15##

5. The sunscreen/cosmetic composition as defined by claim 1, said at least one dibenzoylmethane compound comprising 2-methyldibenzoylmethane, 4-methyldibenzoylmethane, 4-isopropyldibenzoylmethane, 4-tert-butyldibenzoylmethane, 2,4-dimethyldibenzoylmethane, 2,5-dimethyldibenzoylmethane, 4,4'-diisopropyldibenzoylmethane, 4-tert-butyl-4'-methoxydibenzoylmethane, 2-methyl-5-isopropyl-4'-methoxydibenzoylmethane, 2-methyl-5-tert-butyl-4'-methoxydibenzoylmethane, 2,4-dimethyl-4'-methoxydibenzoylmethane, 2,6-dimethyl-4-tert-butyl-4'-methoxy-dibenzoylmethane, and/or 4,4'-dimethoxydibenzoylmethane.

6. The sunscreen/cosmetic composition as defined by claim 5, said at least one dibenzoylmethane compound comprising 4-tert-butyl-4'-methoxydibenzoylmethane.

7. The sunscreen/cosmetic composition as defined by claim 5, said at least one dibenzoylmethane compound comprising 4-isopropyldibenzoylmethane.

8. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.5% to 20% by weight of said at least one benzalmalonate silane (I).

9. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic

UV-A and/or UV-B sunscreen.

10. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

11. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additive or adjuvant which comprises a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, pigment, nanopigment, or mixture thereof.

12. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid, stick, foam or **spray**.

13. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

14. The sunscreen/cosmetic composition as defined by claim 1, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

15. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a skin cream, foundation, face powder, lipstick, mascara, eyeliner, hair gel, hair lotion, or shampoo.

17. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

18. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 11 OF 29 USPATFULL
AN 1999:88773 USPATFULL
TI UV-Photoprotective cosmetic compositions comprising polymer particulates/fatty phases having unique refractive indices
IN Plessix, Herve, Bourg la Reine, France
Mondet, Jean, Aulnay Sous Bois, France
de Rigal, Jean, Claye Souilly, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5932194 19990803
AI US 1998-34229 19980304 (9)
PRAI FR 1997-2800 19970310
DT Utility
FS Granted
EXNAM Primary Examiner: Webman, Edward J.
LREP Burns, Doane, Swecker & Mathis, L.L.P.

CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 618
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable cosmetic/dermatological composition well suited for improved photoprotection of human keratinous substrates, for example human skin and/or hair, comprise (a) an aqueous phase, (b) at least one fatty phase having a refractive index n.sub.1, (c) an effective UV-photoprotecting amount of at least one water-soluble UV-screening active agent, and (d) particulates of at least one non-film- forming polymer having a refractive index n.sub.2, and the refractive indices n.sub.1, and n.sub.2 being selected such that:

.vertline.n.sub.2 -n.sub.1 .vertline..ltoreq.0.07.

CLM What is claimed is:

1. A topically applicable cosmetic/dermatological composition suited for the photoprotection of human keratin, comprising (a) an aqueous phase, (b) at least one fatty phase having a refractive index n.sub.1, (c) an effective UV-photoprotecting amount of at least one water-soluble UV-screening active agent, and (d) particulates of at least one non-film- forming polymer having a refractive index n.sub.2, said refractive indices n.sub.1 and n.sub.2 being selected such that: .vertline.n.sub.2 -n.sub.1 .vertline..ltoreq.0.07.

2. The cosmetic/dermatological composition as defined by claim 1, formulated into topically applicable, cosmetically/dermatologically acceptable vehicle, diluent or carrier therefor.

3. The cosmetic/dermatological composition as defined by claim 1, said at least one non-film-forming polymer comprising a radical polymer, polycondensate, or optically modified natural polymer.

4. The cosmetic/dermatological composition as defined by claim 3, said at least one non-film-forming polymer comprising a polyester, polyesteramide, alkyd, polyacrylic, polyvinylic, polyurethane, polystyrene, natural or modified carbohydrate polymer or derivative thereof, natural or modified protein, or mixture thereof.

5. The cosmetic/dermatological composition as defined by claim 1, comprising (d) particulates of at least one crosslinked non-film-forming polymer.

6. The cosmetic/dermatological composition as defined by claim 1, said at least one non-film-forming polymer comprising aqueous, aqueous/alcoholic or alcoholic dispersion thereof.

7. The cosmetic/dermatological composition as defined by claim 1, said at least one non-film-forming polymer comprising fatty phase dispersion thereof.

8. The cosmetic/dermatological composition as defined by claim 1, said particulates of said at least one non-film-forming polymer having a particle size ranging from 3 to 700 nm.

9. The cosmetic/dermatological composition as defined by claim 8, said particle size ranging from 10 to 350 nm.

10. The cosmetic/dermatological composition as defined by claim 1, said at least one non-film-forming polymer comprising from 0.5% to 30% by weight thereof.

11. The cosmetic/dermatological composition as defined by claim 10, said

at least one non-film-forming polymer comprising from 2% to 15% by weight thereof.

12. The cosmetic/dermatological composition as defined by claim 1, comprising at least one hydrophilic UV-screening active species selected from among para-aminobenzoic acid or salt thereof, anthranilic acid or salt thereof, salicylic acid or salt thereof, cinnamic acid derivative or salt thereof, sulfonic derivative of benz-x-azole or salt thereof, sulfonic derivative of benzophenone or salt thereof, sulfonic derivative of benzylidenecamphor or salt thereof, benzylidene-camphor derivative substituted by a quaternary amine or salt thereof, phthalydene-camphorsulfonic acid derivative or salt thereof, sulfonic derivative of benzotriazole, or nanoparticles of an inorganic oxide.

13. The cosmetic/dermatological composition as defined by claim 1, said at least one UV-screening active agent (c) comprising from 0.1% to 30% by weight thereof.

14. The cosmetic/dermatological composition as defined by claim 13, said at least one UV-screening active agent (c) comprising from 0.5% to 25% by weight thereof.

15. The cosmetic/dermatological composition as defined by claim 1, said at least one fatty phase (b) comprising a mineral oil, aromatic hydrocarbon oil, polyglycerol ester, animal oil, plant oil, synthetic oil, fluoro or perfluoro oil, fatty acid ester, fatty alcohol, silicone, or organomodified silicone.

16. The cosmetic/dermatological composition as defined by claim 1, comprising (c) at least one UV-A screening active agent and at least one UV-B screening active agent.

17. The cosmetic/dermatological composition as defined by claim 2, comprising an emulsion.

18. The cosmetic/dermatological composition as defined by claim 2, comprising a serum, milk, cream, paste, gel, ointment, lotion or mousse.

19. The cosmetic/dermatological composition as defined by claim 2, comprising a skincare, haircare, or makeup formulation.

20. The cosmetic/dermatological composition as defined by claim 19, comprising a skin cream, foundation, face powder, lipstick, mascara, eyeliner, hair gel, hair lotion, or shampoo.

21. The cosmetic/dermatological composition as defined by claim 1, further comprising a fat, organic solvent, **thickening** or gelling agent, softener, antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, hydrophilic or lipophilic active agent, bactericide, weight-reducing active agent, antidandruff agent, anti-free-radical agent, wax, paste, complementary sunscreen, self-tanning agent, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, pigment, or mixture thereof.

22. A method for protecting a human keratinous substrate against the deleterious effects of ultraviolet radiation, comprising topically applying thereto an effective photoprotecting amount of the cosmetic/dermatological composition as defined by claim 1.

23. The method as defined by claim 1, comprising photoprotecting human

skin, scalp, hair, eyelashes, eyebrows, and/or nails.

L18 ANSWER 12 OF 29 USPATFULL
AN 1999:63180 USPATFULL
TI Cleaning articles comprising a high internal phase inverse emulsion and a carrier with controlled absorbency
IN Cabell, David William, Cincinnati, OH, United States
Mackey, Larry Neil, Fairfield, OH, United States
Ampulski, Robert Stanley, Fairfield, OH, United States
Trokhan, Paul Dennis, Hamilton, OH, United States
Toussant, John William, West Chester, OH, United States
Cartledge, Jr., James Edwin, West Chester, OH, United States
Nissing, Nicholas James, Cincinnati, OH, United States
PA The Procter & Gamble Company, Cincinnati, OH, United States (U.S. corporation)
PI US 5908707 19990601
AI US 1996-761733 19961205 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Marquis, Melvyn I.
LREP Roof, Carl J., Linman, E. Kelly, Rasser, Jacobus C.
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 4 Drawing Page(s)
LN.CNT 2075
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Wet-like cleaning wipes and similar articles are described. These wipes comprise a carrier that provides controlled fluid absorbency and an emulsion applied to the carrier. The emulsion comprises a continuous external lipid phase and a polar (e.g., water) internal phase. The emulsion is sufficiently brittle that it ruptures when subjected to low shear pressures during use to release the dispersed polar phase. The carrier allows the released internal phase to initially reach and remain on the surface being cleaned, but then absorbs the material at the end of the wiping process.
CLM What is claimed is:
1. An article, which comprises: a. a carrier; and b. an emulsion applied to the carrier, the emulsion comprising: (1) from about 2 to about 60% of a continuous, solidified lipid phase comprising a waxy lipid material having a melting point of about 30.degree. C. or higher; (2) from about 39 to about 97% of an internal polar phase dispersed in the lipid phase; and (3) an effective amount of an emulsifier capable of forming the emulsion when the lipid phase is in a fluid state; c. wherein the article has a rate of absorbency of distilled water of not more than about 0.35 gram per gram of carrier per second.

2. The article of claim 1 wherein the article has a rate of absorbency of distilled water of not more than about 0.25 gram per gram of carrier per second.

3. The article of claim 2 wherein the article has a rate of absorbency of distilled water of from about 0.05 to about 0.17 gram per gram of carrier per second.

4. The article of claim 1 wherein the article has an absorbent capacity of at least about 1 gram of distilled water per gram of carrier.

5. The article of claim 4 wherein the article has an absorbent capacity of at least about 5 gram of distilled water per gram of carrier.

6. The article of claim 5 wherein the article has an absorbent capacity of at least about 15 gram of distilled water per gram of carrier.

7. The article of claim 1 wherein the emulsion comprises from about 5 to about 30% lipid phase and from about 67 to about 92% polar phase.

8. The article of claim 7 wherein the emulsion comprises from about 6 to about 15% lipid phase and from about 82 to about 91% polar phase.

9. The article of claim 1 wherein the emulsion's internal polar phase comprises at least 60% water.

10. The article of claim 9 wherein the emulsion's internal polar phase comprises at least 75% water.

11. The article of claim 1 wherein the waxy lipid material has a melting point in the range of from about 40.degree. to about 80.degree. C.

12. The article of claim 11 wherein the waxy lipid material has a melting point in the range of from about 60.degree. to about 70.degree. C.

13. The article of claim 1 wherein the waxy lipid material is selected from the group consisting of animal waxes, vegetable waxes, mineral waxes, synthetic waxes and mixtures thereof.

14. The article of claim 13 wherein the waxy lipid material is selected from the group consisting of beeswax, lanolin, candelilla, petrolatum, microcrystalline wax, yellow ceresine wax, white ozokerite, polyethylene waxes, and mixtures thereof.

15. The article of claim 1 wherein the emulsion further comprises a component selected from the group consisting of perfumes, antimicrobials, detersive **surfactants**, pharmaceutical actives, deodorants, opacifiers, astringents, **insect repellents** , bleaches, radical scavengers, chelating agents, **thickeners**, builders, buffers, stabilizers, bleach activators, soil suspenders, dye transfer agents, brighteners, anti dusting agents, enzymes, dispersants, dye transfer inhibitors, pigments, dyes, and mixtures thereof.

16. The article of claim 15 wherein the emulsion comprises a component selected from the group consisting of antimicrobials, detersive **surfactants**, bleaches, and mixtures thereof.

17. The article of claim 1 wherein the carrier comprises cellulosic fibers.

18. The article of claim 17 wherein the carrier further comprises a material selected from the group consisting of a fluid impermeable, polar-soluble film; a sizing agent; a hydrophobic ester or amide; a fatty acid; and mixtures thereof.

19. The article of claim 18 wherein the carrier comprises an amino-silicone sizing agent at a level of from about 250 to about 1000 parts per million, based on the total weight of the carrier.

20. The article of claim 1 wherein at least two different emulsions are applied to said carrier.

21. An article, which comprises: a. a carrier; and b. an emulsion applied to the carrier, the emulsion comprising: (1) from about 5 to about 30% of a continuous, solidified lipid phase comprising a waxy lipid material having a melting point of from about 40.degree. to about 80.degree. C.; (2) from about 67 to about 92% of an internal polar phase dispersed in the lipid phase, the internal polar phase comprising at

least 75% water; and (3) an effective amount of an emulsifier capable of forming the emulsion when the lipid phase is in a fluid state; c. wherein the article has a rate of absorbency of distilled water of from about 0.05 to about 0.25 gram per gram of carrier per second.

22. The article of claim 21 wherein the article has an absorbent capacity of at least about 5 gram of distilled water per gram of carrier.

23. An article, which comprises: a. a carrier; and b. an emulsion having a continuous external lipid phase and a dispersed polar internal phase applied to the carrier; wherein the article has a rate of absorbency of distilled water of not more than about 0.35 gram per gram of carrier per second, and wherein further the emulsion is prepared by combining at least the following materials: (1) from about 2 to about 60% of a waxy lipid material having a melting point of about 30.degree. C. or higher; (2) from about 39 to about 97% of a polar material; and (3) an effective amount of an emulsifier capable of forming the emulsion when the waxy lipid is in a fluid state; where the weight percent for each of components (1), (2) and (3) is determined from the amount combined relative to the total weight of the emulsion.

24. An article, which comprises: a. a carrier; and b. an emulsion applied to the carrier, the emulsion comprising: (1) from about 2 to about 60% of a continuous, solidified lipid phase comprising a waxy lipid material having a melting point of about 30.degree. C. or higher; (2) from about 39 to about 97% of an internal polar phase dispersed in the lipid phase; and (3) an effective amount of an emulsifier capable of forming the emulsion when the lipid phase is in a fluid state; wherein the carrier comprises a material selected from the group consisting of a fluid impermeable, polar-soluble film; a sizing agent; a hydrophobic ester or amide; a fatty acid; and mixtures thereof.

25. The article of claim 24 wherein the emulsion comprises from about 5 to about 30% lipid phase and from about 67 to about 92% polar phase.

26. The article of claim 24 wherein the emulsion's internal polar phase comprises at least 75% water.

27. The article of claim 24 wherein the waxy lipid material has a melting point in the range of from about 40.degree. to about 80.degree. C.

28. The article of claim 24 wherein the waxy lipid material is selected from the group consisting of animal waxes, vegetable waxes, mineral waxes, synthetic waxes and mixtures thereof.

29. The article of claim 24 wherein the emulsion further comprises a component selected from the group consisting of perfumes, antimicrobials, detersive **surfactants**, pharmaceutical actives, deodorants, opacifiers, astringents, **insect repellents** , bleaches, radical scavengers, chelating agents, **thickeners**, builders, buffers, stabilizers, bleach activators, soil suspenders, dye transfer agents, brighteners, anti dusting agents, enzymes, dispersants, dye transfer inhibitors, pigments, dyes, and mixtures thereof.

30. The article of claim 24 wherein the carrier comprises a fluid impermeable film derived from a material selected from the group consisting of polyvinyl alcohol, polyethylene glycol, and polyvinylpyrrolidone.

31. The article of claim 24 wherein the carrier comprises a hydrophobic ester or amide.

32. The article of claim 31 wherein the carrier comprises an ester-functional ammonium compound.

33. A process for making the article of claim 1, the process comprising: A. forming an emulsion comprising: (1) from about 2 to about 60% of a continuous external lipid phase comprising a waxy lipid material having a melting point of about 30.degree. C. or higher; (2) from about 39 to about 97% of an internal polar phase dispersed in the external lipid phase; and (3) an effective amount of an emulsifier capable of forming the emulsion when the external lipid phase is in a fluid state; B. applying the emulsion to a carrier at a temperature sufficiently high such that the external lipid phase has a fluid or plastic consistency; and C. cooling the applied emulsion to a temperature sufficiently low such that the external lipid phase solidifies.

34. The process of claim 33 wherein the emulsion is applied to the carrier at temperature in the range from about 60.degree. to about 90.degree. C.

35. The process of claim 34 wherein the emulsion is applied to the carrier at temperature in the range from 70.degree. to about 80.degree. C.

36. The process of claim 33 wherein the emulsion is applied to the carrier by a step selected from the group consisting of **spraying**, printing, coating, extruding, and combinations thereof.

37. The process of claim 36 wherein the emulsion is applied to the carrier by a step selected from the group consisting of rotogravure coating and printing.

L18 ANSWER 13 OF 29 USPATFULL
AN 1999:63091 USPATFULL
TI Topical composition containing at least one protein
IN Lorant, Raluca, Thiais, France
PA L'Oreal, France (non-U.S. corporation)
PI US 5908618 19990601
AI US 1997-998651 19971229 (8)
PRAI FR 1996-16132 19961227
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Channavajjala, Lakshmi
LREP Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 692
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a cosmetic and/or dermatological composition containing at least one protein selected from proteins of plant origin and animal origin, wherein the protein may or may not be hydrolysed, and at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer neutralized to at least 90%, and to its uses. The composition comprises, distributed randomly,

a) from 90 to 99.9% by weight of units of formula (1): ##STR1## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for at most 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and

b) from 0.01 to 10% by weight of crosslinking units resulting from at

least one monomer having at least two olefinic double bonds, the proportions by weight being defined with respect to the total weight of the polymer.

CLM What is claimed is:

1. A cosmetic and/or dermatological composition comprising, in a cosmetically and/or dermatologically acceptable medium, at least one protein of plant origin or animal origin, wherein said at least one protein may or may not be hydrolysed, and at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) neutralized to at least 90% comprises, distributed randomly: a) from 90 to 99.9% by weight of units of following formula (1): ##STR4## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for at most 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and b) from 0.01 to 10% by weight of crosslinking units resulting from at least one monomer having at least two olefinic double bonds, the proportions by weight being defined with respect to the total weight of the polymer.

2. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) contains a number of units of formula (1) in an amount which is sufficiently high to produce a hydrodynamic volume of the polymer in solution in water having a radius ranging from 10 to 500 nm, with a homogeneous and unimodal distribution.

3. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) contains from 98 to 99.5% by weight of units of formula (1) and from 0.2 to 2% by weight of crosslinking units.

4. A composition according to claim 1, wherein, in the formula (1), the cation X.sup.+ is NH.sub.4.sup.+.

5. A composition according to claim 2, wherein said crosslinking monomer units correspond to the following formula (2): ##STR5## in which R.sub.1 denotes a hydrogen atom or a C.sub.1 -C.sub.4 alkyl.

6. A composition according to claim 1, wherein said poly(2-acrylamido-2-methylpropanesulphonic acid) is crosslinked with trimethylolpropane triacrylate.

7. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) exhibits a viscosity, measured with a Brookfield viscometer, rotor 4, at a rotational speed of 100 revolutions/minute in a 2% solution in water at 25.degree. C., of greater than or equal to 1000 cPs.

8. A composition according to claim 7, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) exhibits a viscosity ranging from 5000 to 40,000 cPs.

9. A composition according to claim 8, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) exhibits a viscosity ranging from 6500 to 35,000 cPs.

10. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) is present in a concentration ranging from 0.01 to 20% by weight with respect to the total weight of the composition.

11. A composition according to claim 10, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) is present in a concentration ranging from 0.1 to 10% by weight with respect to the total weight of the composition.

12. A composition according to claim 1, wherein said plant proteins are soya proteins; wheat proteins; oat proteins; pea proteins, or the hydrolysates thereof.

13. A composition according to claim 1, wherein said animal proteins are milk proteins; serum proteins; placental proteins; or fibrous skin proteins.

14. A composition according to claim 1, wherein said at least one protein is present in a concentration ranging from 0.001% to 30% by weight with respect to the total weight of the composition.

15. A composition according to claim 14, wherein said at least one protein is present in a concentration ranging from 0.01% to 10% by weight with respect to the total weight of the composition.

16. A composition according to claim 1, wherein said cosmetically and/or dermatologically acceptable medium comprises water or water and at least one organic solvent wherein said at least one organic solvent is a hydrophilic organic solvent, a lipophilic organic solvent, an amphiphilic solvent or a mixture thereof.

17. A composition according to claim 16, wherein said at least one organic solvent is a mono- or polyfunctional alcohol, optionally oxyethylenated polyethylene glycol, propylene glycol ester, sorbitol, a derivative of sorbitol, dialkyl isosorbide, glycol ether, propylene glycol ether, or a fatty ester.

18. A composition according to claim 17, wherein said at least one organic solvent represents from 5% to 98% of the total weight of the composition.

19. A composition according to claim 1, additionally comprising at least one fatty phase.

20. A composition according to claim 19, wherein said fatty phase represents up to 50% of the total weight of the composition.

21. A composition according to claim 1, wherein said composition additionally contains at least one additive selected from the group consisting of conventional hydrophilic and lipophilic gelling and **thickening** agents; hydrophilic and lipophilic active principles; **preservatives**; antioxidants; fragrances; emulsifiers; moisturizing agents; pigmenting agents; depigmenting agents; keratolytic agents; vitamins; emollients; sequestering agents; **surfactants** ; polymers; basifying and acidifying agents; fillers; agents for combating free radicals; ceramides; sunscreen agents; **insect repellents**; slimming agents; coloring materials; bactericides; and antidandruff agents.

22. A composition according to claim 21, wherein said sunscreen agents are ultraviolet screening agents.

23. A rinse-out or leave-in hair product for washing, caring for, conditioning or retaining the form of a hairstyle or shaping the hair, said product comprising a cosmetic and/or dermatological composition according to claim 1.

24. A care and/or hygiene product, said product comprising a cosmetic and/or dermatological composition according to claim 1.

25. A make-up product, said product comprising a cosmetic and/or

dermatological composition according to claim 1.

26. An anti-sun product, said product comprising a cosmetic and/or dermatological composition according to claim 1.

27. A process for the non-therapeutic and cosmetic treatment of a substrate selected from the skin, scalp, hair, eyelashes, eyebrows, nails and mucous membranes, said process comprising applying on said substrate a cosmetic and/or dermatological composition according to claim 1.

28. A cosmetic and/or dermatological composition according to claim 1, wherein said composition is in the form of a lotion, a serum, a milk, a pomade or an ointment intended for the therapeutic treatment of the skin, scalp, hair, eyelashes, eyebrows, nails or mucous membranes.

29. A process for preparing a topical composition in the form of an oil-in-water or water-in-oil emulsion containing at least one protein of plant origin or animal origin, wherein said at least one protein may or may not be hydrolysed, said process comprising including in said composition at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) neutralized to at-least 90% as a stabilizing agent comprises, distributed randomly: a) from 90 to 99.9% by weight of units of following formula (1): ##STR6## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for at most 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and b) from 0.01 to 10% by weight of crosslinking units resulting from at least one monomer having at least two olefinic double bonds, the proportions by weight being defined with respect to the total weight of the polymer.

30. A process for preparing a topical composition in the form of a **surfactant**-free oil-in-water emulsion containing a fatty phase, an aqueous phase, and at least one protein of plant origin or animal origin, wherein said at least one protein may or may not be hydrolysed, said process comprising including in said composition at least one crosslinked poly(2-acrylamido-2-methyl-propanesulphonic acid) neutralized to at least 90% as a stabilizing agent comprises, distributed randomly: a) from 90 to 99.9% by weight of units of following formula (1): ##STR7## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for at most 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and b) from 0.01 to 10% by weight of crosslinking units resulting from at least one monomer having at least two olefinic double bonds, the proportions by weight being defined with respect to the total weight of the polymer.

L18 ANSWER 14 OF 29 USPATFULL
AN 1999:43201 USPATFULL
TI Cosmetic or dermatological composition containing at least one active principle precursor and a crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer neutralized to at least 90%
IN Sebillote-Arnaud, Laurence, L'Hay Les Roses, France
Lorant, Raluca, Thiais, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5891452 19990406
AI US 1997-885596 19970630 (8)
PRAI FR 1996-8110 19960628
DT Utility
FS Granted
EXNAM Primary Examiner: Venkat, Jyothsna
LREP Finnegan, Henderson, Farabow & Garrett & Dunner, L.L.P.
CLMN Number of Claims: 27
ECL Exemplary Claim: 1

DRWN No Drawings
LN.CNT 753
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a cosmetic or dermatological composition containing at least one active principle precursor capable of releasing an active principle by enzymatic reaction on contact with the Stratum corneum and at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer neutralized to at least 90% and to its uses. It generally contains, distributed randomly: (a) from 90 to 99.9% by weight of units of formula (1): ##STR1## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for at most 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and (b) from 0.01 to 10% by weight of crosslinking units resulting from at least one monomer having at least two olefinic double bonds, the proportions by weight being defined with respect to the total weight of the polymer.

CLM What is claimed is:

1. A cosmetic or dermatological composition, said composition comprising, in a cosmetically and dermatologically acceptable medium, at least one active principle precursor which releases an active principle by enzymatic reaction on contact with the Stratum comeum and at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer neutralized to at least 90%, wherein said active principle precursor is selected from the group consisting of: phosphates, sulphates, palmitates, acetates, nicotinates, propionates and monosaccharide derivatives of vitamin A, vitamin C and vitamin E, wherein when said monosaccharide derivatives are derivatives of vitamin C, said monosaccharide derivatives of vitamin C are selected from the group consisting of glucosylated, mannosylated, fructosylated or N-acetylglucosaminated vitamin C, N-acetylmuramic derivatives of vitamin C, fucosylated or galactosylated derivatives of vitamin C and mixtures thereof: hydroxy acid precursors selected from the group consisting of glycerol trilactate, ethyl lactate and sulphated derivatives of lactic acid; glycerol precursors selected from the group consisting of .beta.-glycerophosphates; quercetin precursors selected from the group consisting of glucosylquercetin and quercetin ferulate; and nucleotide precursors selected from the group consisting of adenosine phosphate, guanosine phosphate, cytosine phosphate, uridine phosphate, thymidine phosphate, inosine phosphate and xanthosine phosphate, and further wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer comprises, randomly distributed: (a) from 90 to 99.9% by weight, relative to the weight of said at least one crosslinked polymer, of units of formula (1) below: ##STR4## in which X.sup.+ denotes a cation or a mixture of cations, it being possible for not more than 10 mol % of the cations X.sup.+ to be protons H.sup.+ ; and (b) from 0.01 to 10% by weight, relative to the weight of said at least one crosslinked polymer, of crosslinking units originating from at least one monomer having at least two olefinic double bonds, wherein said at least one monomer is dipropylene glycol diallyl ether, polyglycol diallyl ether, triethylene glycol divinyl ether, hydroquinone diallyl ether; tetraethylene glycol diacrylate, triallylamine, trimethylolpropane diallyl ether, or a compound corresponding to formula (2) below: ##STR5## in which R.sub.1 denotes a hydrogen atom or a C.sub.1 -C.sub.4 alkyl.

2. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer contains a number of units of formula (1) in an amount which is sufficiently high to produce a hydrodynamic volume of the polymer in solution in water having a radius ranging from 10 to 500 nm, with a homogeneous and unimodal distribution.

3. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer

contains from 98 to 99.5% by weight of units of formula (1) and from 0.2 to 2% by weight of crosslinking units.

4. A composition according to claim 1, wherein, in the formula (1), the cation X.sup.+ is NH.sub.4.sup.+.

5. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer is crosslinked with trimethylolpropane triacrylate.

6. A composition according to claim 1, wherein the polymers of formula (1), when present in an aqueous solution at a concentration of 2%, have a viscosity, measured with a Brookfield viscometer, rotor 4, speed 100 revolutions/minute at 25.degree. C., of greater than or equal to 1000 cps.

7. A composition according to claim 6, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer exhibits a viscosity ranging from 5000 to 40,000 cPs.

8. A composition according to claim 7, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer exhibits a viscosity ranging from 6500 to 35,000 cPs.

9. A composition according to claim 1, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer is present in a concentration ranging from 0.01 to 20% by weight with respect to the total weight of the composition.

10. A composition according to claim 9, wherein said at least one crosslinked poly(2-acrylamido-2-methylpropanesulphonic acid) polymer is present in a concentration ranging from 0.1 to 10% by weight with respect to the total weight of the composition.

11. A composition according to claim 1, wherein said at least one active principle precursor is a phosphate derivative of vitamin C.

12. A composition according to claim 1, wherein said at least one active principle precursor is a transition metal salt of ascorbylphosphate.

13. A composition according to claim 1, wherein said at least one active principle precursor is present in a concentration ranging from 0.01% to 10% by weight with respect to the total weight of the composition.

14. A composition according to claim 13, wherein said at least one active principle precursor is present in a concentration ranging from 0.01% to 1% by weight with respect to the total weight of the composition.

15. A composition according to claim 1, wherein said cosmetically or dermatologically acceptable medium is composed of water or of water and of at least one organic solvent selected from the group consisting of hydrophilic organic solvents, lipophilic organic solvents, amphiphilic solvents and mixtures thereof.

16. A composition according to claim 15, wherein said at least one organic solvent is a mono- or polyfunctional alcohol, an oxyethylenated polyethylene glycol, a propylene glycol ester, sorbitol or a derivative thereof, a dialkyl isosorbide, a glycol ether, a propylene glycol ether, or a fatty ester.

17. A composition according to claim 15, wherein said at least one organic solvent represents from 5% to 98% of the total weight of the

composition.

18. A composition according to claim 1, wherein said composition additionally comprises at least one fatty phase.

19. A composition according to claim 18, wherein said at least one fatty phase represents up to 50% of the total weight of the composition.

20. A composition according to claim 1, wherein said composition additionally contains at least one additive selected from the group consisting of conventional hydrophilic or lipophilic gelling or **thickening** agents hydrophilic or lipophilic active principles, **preservatives**, antioxidants, fragrances, emulsifiers, moisturizing agents, pigmenting agents, depigmenting agents, keratolytic agents, vitamins, emollients, sequestering agents, **surfactants** , polymers, basifying or acidifying agents, fillers, agents for combating free radicals, ceramides, sunscreen agents, **insect repellents**, slimming agents, coloring materials, bactericides, and antidandruff agents.

21. A composition according to claim 20, wherein said sunscreen agents are ultraviolet screening agents.

22. A method for washing, caring for, conditioning or promoting form retention of the hairstyle or shaping the hair, said method comprising applying an effective amount of a composition according to claim 1 to the hair as a rinse-out or leave-in hair product.

23. A process for the non-therapeutic cosmetic treatment of the skin, scalp, hair, eyelashes, eyebrows, nails or mucous membranes, wherein an effective amount of a composition as defined according to claim 1 is applied onto said skin, scalp, hair, eyelashes, eyebrows, nails or mucous membranes.

24. A process according to claim 23, wherein said composition is a care product, a hygiene product, a make-up product, or an anti-sun product.

25. A process for the care and hygiene of the mouth, said process comprising placing an effective amount of a composition according to claim 1 in the mouth as an oral care product.

26. A process for the therapeutic treatment of the skin, scalp, hair, eyelashes, eyebrows, nails or mucous membranes, wherein an effective amount of a composition as defined according to claim 1 is applied onto said skin, scalp, hair, eyelashes, eyebrows, nails or mucous membranes.

27. A process according to claim 26, wherein said composition is a care product, a hygiene product, a make-up product, or an anti-sun product.

L18 ANSWER 15 OF 29 USPATFULL
AN 1999:39947 USPATFULL
TI Composition, barrier film, and method for preventing contact dermatitis
IN Toma, Joan Dalla Riva, Piscataway, NJ, United States
Karl, Curtis L., Somerset, NJ, United States
PA Hydromer, Inc., Branchburg, NJ, United States (U.S. corporation)
PI US 5888520 19990330
AI US 1997-845741 19970425 (8)
RLI Continuation-in-part of Ser. No. US 1996-642227, filed on 30 Apr 1996
DT Utility
FS Granted
EXNAM Primary Examiner: Venkat, Jyothsna
LREP Hoffmann & Baron, LLP

CLMN Number of Claims: 14
ECL Exemplary Claim: 1,8
DRWN No Drawings
LN.CNT 879
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a composition, and a method for preventing or reducing contact dermatitis. The composition contains a polysaccharide; a low molecular weight, synergistic saccharide; a solvent; and optionally an additive material.

The present invention is further a dermatologically-compatible barrier film for preventing and reducing contact dermatitis which contains a polysaccharide; a low molecular weight, synergistic saccharide; and optionally one or more additives. The dermatologically-compatible barrier film is formed of a composition containing a polysaccharide; a low molecular weight, synergistic saccharide; a solvent; and optionally an additive material. The composition is a skin care product in a form of a lotion, a gel or a cream that is applied to skin of mammals. Once applied, the solvent in the composition evaporates, and thereby leaving behind a dermatologically-compatible barrier film containing a polysaccharide; a low molecular weight, synergistic saccharide; and optionally an additive material.

CLM What is claimed is:

1. A composition for inhibiting or reducing contact dermatitis which comprises: (1) a polysaccharide, said polysaccharide is a nonionic cellulose derivative selected from the group consisting of methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxybutylcellulose, methylhydroxyethylcellulose, methylhydroxypropylcellulose, methylhydroxybutylcellulose, hydroxyethylhydroxypropylcellulose, and ethylhydroxyethylcellulose; (2) a low molecular weight synergistic saccharide, said low molecular weight, synergistic saccharide is selected from the group consisting of fructose, glucose, mannose, sucrose, maltose, maltodextrin, **corn syrup** solids, derivatized monosaccharide, derivatized disaccharide, and derivatized starch hydrolysate, said derivatized monosaccharide is selected from the group consisting of ethoxylates of methyl glucoside, propoxylates of methyl glucoside, propoxylates of methyl glucoside distearate, and methyl glucose dioleate, said derivatized disaccharide is selected from the group consisting of about 10 mole ethoxylates, about 20 mole ethoxylates, about 10 mole propoxylates, about 20 mole propoxylates, said derivatized starch hydrolysate is selected from the group consisting of about 10 mole ethoxylates, about 20 mole ethoxylates, about 10 mole propoxylates, and about 20 mole propoxylates; (3) a solvent; and (4) an additive agent; said additive agent is selected from the group consisting of colorants, film solubility modifiers, film plasticizers, salts, natural extracts, exfoliants, astringents, antioxidants, vitamins, self-tanning agents, emulsifiers, emollients, enzymes, keratolytics, antipruitics, analgesics, anesthetics, antihistamines, antimicrobial agents, **preservaties**, antibiotics, antiseptics, antifungals, antivirals, and mixtures thereof, and said antimicrobial agent is selected from the group consisting of triclosan, hexetidine, chlorhexidine salts, 2-bromo-2-nitropropane-1,3-diol, hexyresorcinol, benzalkonium chloride, cetylpyridinium chloride, alklbenzlydimethylammonium chlorides, iodine, povidone-iodine, parabens, hydantoins, hydantoins derivaties, phenoxyethanol, cis isomer of 1-(3-chloroallyl)-3,5,6-triaza-1-azoniaadamantane chloride, and mixtures thereof, wherein said polysaccharides is in the amount of about 5 wt. % to about 20 wt. %, wherein said low molecular weight, synergistic saccharide is in the amount of 2 wt. % to 10 wt. %, wherein said solvent is in the amount of about 70 wt. % to about 93 wt. %, and wherein said additive solvent is in the amount of about 0.01 wt. % to about 30 wt. %.

2. The composition of claim 1, wherein said additive is an antimcrobial agent.

3. The composition of claim 1, wherein said polysaccharide is hydroxypropylcellulose.

4. The composition of claim 1, wherein derivatized monosaccharide is about 20 mole ethoxylate of methyl glucoside.

5. The composition of claim 1, wherein said solvent is selected from the group consisting of water, lower alcohols, low molecular weight glycols or mixtures thereof.

6. The composition of claim 2, wherein said antimicrobial agent is selected from the group consisting of triclosan, cis isomer of 1-(3-chloroallyl)-3,5,6-triaza-1-azoniaadamantane chloride, hydantoins, hydantoin derivatives, and mixtures thereof.

7. The composition of claim 2, wherein said polysaccharide is in the amount of about 5 wt. % to about 20 wt. %, wherein said low molecular weight, synergistic saccharide is in the amount of 2 wt. % to 10 wt. %, wherein said antimicrobial agent is in the amount of about 0.1 wt. % to about 2 wt. %, wherein said solvent is in the amount of about 70 wt. % to about 93 wt. %, and optionally wherein said additive is in the amount of about 0.01 wt. % to about of 30 wt. %.

8. A method for inhbiting or reducing contact dermatitis which comprises: applying a dermatologically-compatible barrier film composition to skin of mammals, wherein said composition comprises (1) a polysaccharide, said polysaccharide is a nonionic cellulose derivative selected from the group consisting of methylcellulose, ethylcellulose, hydroxyethylcellulose, hydroxypropylcellulose, hydroxybutylcellulose, methylhydroxyetylcellulose, metylhydroxypropylcellulose, methylhydroxybutylcellulose, hydroxyethylhydroxypropylcellulose, and ethylhydroxyethylcellulose; (2) a low molecular weight, synergitic saccharide, said low molecular weight, synergistic saccharide is selected from the group consisting of fructose, glucose, mannose, sucrose, maltose, maltodextrin, **corn syrup** solids, derivatized monosaccharide, derivatized disaccharide, and derivatized starch hydrolysate, said derivatized mnonosaccharide is selected from the group consisting of ethoxylates of methyl glucoside, propoxylates of methyl glucoside, propoxylates of methyl glucoside distearate, and methyl glucose dioleate, said derivatized disaccharide is selected from the group consisting of about 10 mole ethoxylates, about 20 mole ethoxylates, about 10 mole propoxylates, about 20 mole propoxylates, said derivatized starch hydrolysate is selected from the group consisting of about 10 mole ethoxylates, about 20 mole ethoxylates, about 10 mole propoxylates, and about 20 mole propoxylates; (3) a solvent; and (4) an additive agent, said additive agent is selected from the group consisting of colorants, fragrances, sunscreen, **insect repellants**, **surfactants**, flow modifiers, agents, **preservatives**, antibiotics, antiseptics, antifungals, antivirals, and mixtures thereof, and said antimicrobial agent is selected from the group consisting of triclosan, hexetidine, chlorhexidine salts, 2-bromo-2-nitropropane-1,3-diol, hexyresorcinol, benzalkonium chloride, cetylpyridinium chloride, alklbenzlydimetlkylammonium chlorides, iodine, povidone-iodine, parabens, hydantoins, hydantoins derivatives, phenoxyethanol, cis isomer of 1-(3-chloroallyl)3,5,6-triaza-1-azoniaadamantane chloride, diazolidinyl urea, benzethonium chloride, methylbenzethonium chloride, and mixtures thereof, wherein said polysaccharide is in the amount of about 5 wt. % to about 20 wt. %, wherein said low molecular weight synergistic saccharide is in the amount of 2 wt. % to 10 wt. %, wherein

said solvent is in the amount of about 70 wt. % to about 93 wt. %, and wherein said additive agent is in the amount of about 0.01 wt. % to about 30 wt. %.

9. The method of claim 8 wherein said additive is an antimicrobial agent.

10. The method of claim 8, wherein said polysaccharide is hydroxypropylcellulose.

11. The method of claim 8, wherein derivatized monosaccharide is about 20 mole ethoxylate of methyl glucoside.

12. The method of claim 8 wherein said solvent is selected from the group consisting of water, lower alcohols, low molecular weight glycols or mixtures thereof.

13. The method of claim 9, wherein said antimicrobial agent is selected from the group consisting of triclosan, cis isomer of 1-(3-chloroallyl)-3,5,6-triaza-1-azoniaadamantane chloride, hydantoins, hydantoin derivatives, and mixtures thereof.

14. The method of claim 8, wherein said polysaccharide is in the amount of about 5 wt. % to about 20 wt. %, wherein said low molecular weight, synergistic saccharide is in the amount of about 2 wt. % to about 10 wt. %, wherein said antimicrobial agent is in the amount of about 0.1 wt. % to about 2 wt. %, wherein said solvent is in the amount of about 70 wt. % to about 93 wt. %, and optionally wherein said additive agent is in the amount of about 0.01 wt. % to about of 30 wt. %.

L18 ANSWER 16 OF 29 USPATFULL
AN 1999:4008 USPATFULL
TI Artificial tanning compositions comprising dihydroxyacetone
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
Hansenne, Isabelle, Paris, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5858334 19990112
AI US 1997-794063 19970204 (8)
RLI Continuation of Ser. No. US 1995-395925, filed on 28 Feb 1995, now abandoned
PRAI FR 1994-2254 19940228
DT Utility
FS Granted
EXNAM Primary Examiner: Kishore, Gollamudi S.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 470
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Stable and homogeneous, topically applicable cosmetic compositions well suited for artificially tanning human skin, comprise a storage-stable, ultrafine oil-in-water emulsion, devoid of lipid vesicles, containing an effective artificial tanning amount of dihydroxyacetone, and further wherein the average particle size of the globules comprising the oily phase of the emulsion characteristically ranges from 100 nm to 1,000 nm.
CLM What is claimed is:
1. A topically applicable cosmetic composition adopted for the artificial tanning of human skin, comprising a storage-stable ultrafine oil-in-water emulsion, devoid of lipid vesicles, wherein the average particle size of the globules comprising the oily phase of said emulsion

ranges from 100 nm to 1,000 nm, and containing an effective artificial tanning amount of dihydroxyacetone comprised in the aqueous phase of said composition and wherein said oil-in-water emulsion is obtained by phase inversion.

2. The cosmetic artificial tanning composition as defined by claim 1, the average particle size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 500 nm.

3. The cosmetic artificial tanning composition as defined by claim 1, at least 90% of said globules having a particle size ranging from 100 nm to 1,000 nm.

4. The cosmetic artificial tanning composition as defined by claim 2, at least 90% of said globules having a particle size ranging from 100 nm to 500 nm.

5. The cosmetic artificial tanning composition as defined by claim 1, the oily phase of said emulsion comprising a cosmetically acceptable fat, oil, wax, or mixture thereof.

6. The cosmetic artificial tanning composition as defined by claim 1, further comprising at least one emulsifying agent.

7. The cosmetic artificial tanning composition as defined by claim 6, comprising from 0.5% to 20% by weight thereof of said at least one emulsifying agent.

8. The cosmetic artificial tanning composition as defined by claim 7, comprising from 2% to 10% by weight thereof of said at least one emulsifying agent.

9. The cosmetic artificial tanning composition as defined by claim 1, the aqueous phase of said emulsion comprising water, admixture of water and at least one polyhydric alcohol, or admixture of water and at least one water-soluble lower alcohol.

10. The cosmetic artificial tanning composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

11. The cosmetic artificial tanning composition as defined by claim 10, said at least one adjuvant or additive selected from the group consisting of an ionic or nonionic **thickener**, softener, antioxidant, opacifier, stabilizer, organic sunscreen, emollient, **insect repellent**, filler, moisturizer, vitamin, perfume, **preservative**, sequestering agent, colorant, photoprotective inorganic nanopigment, pigment, and mixtures thereof.

12. The cosmetic artificial tanning composition as defined by claim 1, the aqueous phase of said emulsion comprising from 50% to 95% by weight thereof.

13. The cosmetic artificial tanning composition as defined by claim 12, the aqueous phase of said emulsion comprising from 70% to 90% by weight thereof.

14. The cosmetic artificial tanning composition as defined by claim 12, the oily phase of said emulsion comprising from 5% to 50% by weight thereof.

15. The cosmetic artificial tanning composition as defined by claim 13, the oily phase of said emulsion comprising from 10% to 30% by weight

thereof.

16. The cosmetic artificial tanning composition as defined by claim 1, the aqueous phase of said emulsion comprising from 50% to 95% by weight relative to the total weight of the formulation.

17. The cosmetic artificial tanning composition as defined by claim 16, said dihydroxyacetone comprising from 1% to 7% by weight relative to the total weight of the formulation.

18. A process for the preparation of the cosmetic artificial tanning composition as defined by claim 1, comprising (i) emulsifying the aqueous phase into the oil phase thereof, at a temperature above the phase inversion temperature of the medium, (ii) cooling the water-in-oil emulsion thus obtained to a temperature below said phase inversion temperature, thereby converting said water-in-oil emulsion into said ultrafine oil-in-water emulsion, and (iii) introducing said dihydroxyacetone into the medium of emulsion either during the step (i) and/or after the step (ii).

19. The process as defined by claim 18, wherein step (i) is carried out in the presence of an effective emulsifying amount of at least one nonionic **surfactant**.

20. The process as defined by claim 19, said at least one nonionic **surfactant** comprising a compound selected from the group consisting of polyoxyethylenated and/or polyoxypropylenated fatty alcohol, a fatty acid ester of a polyol, and mixtures thereof.

21. The process as defined by claim 18, wherein the step (i) medium of emulsion has an overall HLB ranging from about 9.5 to 11.5.

22. The process as defined by claim 21, said overall HLB being approximately 10.

23. The cosmetic artificial tanning composition prepared by the process as defined by claim 18.

24. A method for artificially tanning human skin, comprising topically applying thereto an effective amount of the cosmetic artificial tanning composition as defined by claim 1.

25. The cosmetic artificial tanning composition as defined by claim 1, comprising a cream, gel, ointment, milk or lotion.

26. The process as defined by claim 20, wherein the fatty acid ester of a polyol is polyoxyethylenated and/or polyoxypropylenated.

27. The cosmetic artificial tanning composition as defined by claim 1, wherein said phase inversion comprises (i) emulsifying the aqueous phase into the oil phase thereof, at a temperature above the phase inversion temperature of the medium, (ii) cooling the water-in-oil emulsion thus obtained to a temperature below said phase inversion temperature, thereby converting said water-in-oil emulsion into said ultrafine oil-in-water emulsion, and (iii) introducing said dihydroxyacetone into the medium of emulsion either during the step (i) or after the step (ii), or introducing said dihydroxyacetone both during step (i) and (ii).

L18 ANSWER 17 OF 29 USPATFULL
AN 1998:54464 USPATFULL
TI Photoprotective/cosmetic compositions comprising synergistic admixture

of sunscreen compounds
IN Ascione, Jean-Marc, Paris, France
Pisson, Anne-Marie, Brunoy, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5753209 19980519
AI US 1996-645152 19960513 (8)
PRAI FR 1995-5677 19950512
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 587
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise a photoprotecting synergistically effective amount of (i) 1,4-benzene [di(3-methylidene-10-camphosulfonic)] acid, optionally either partially or totally neutralized, together with a photoprotecting synergistically effective amount of (ii) a benzotriazole-substituted polyorganosiloxane, in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising a photoprotecting synergistically effective amount of (i) 1,4-benzene [di(3-methylidene-10-camphosulfonic)] acid, optionally either partially or totally neutralized, together with a photoprotecting synergistically effective amount of (ii) a benzotriazole-substituted polyorganosiloxane having one of the following structural formulae: ##STR19## in which the radicals R, which may be identical or different, are each C.sub.1 -C.sub.10 alkyl, phenyl and 3,3,3-trifluoropropyl radicals, at least 80% by number of the radicals R being methyl radicals; r is a integer ranging from 0 to 50, inclusive, and s is an integer ranging from 1 to 20, inclusive; u is an integer ranging from 1 to 6, inclusive, and t is an integer ranging from 0 to 10, inclusive, with the proviso that t+u is equal to or greater than 3; and the symbol A is a monovalent radical bonded directly to a silicon atom, and which has the following structural formula: ##STR20## in which the radicals Y, which may be identical or different, are each C.sub.1 -C.sub.8 alkyl radicals, halogen atoms or C.sub.1 -C.sub.4 alkoxy radicals, with the proviso that, in the latter event, two adjacent radicals Y on the same aromatic nucleus may together form an alkylidenedioxy radical in which the alkylidene group has from 1 to 2 carbon atoms; X is O or NH; Z is hydrogen or a C.sub.1 -C.sub.4 alkyl radical; n is an integer ranging from 0 to 3, inclusive; m is 0 or 1; and p is an integer ranging from 1 to 10, inclusive; in a cosmetically acceptable vehicle, carrier or diluent therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, said benzotriazole-substituted polyorganosiloxane having the formula (1) wherein at least one of the following conditions is satisfied: the radicals R are alkyl radicals; r ranges from 0 to 15, inclusive; s ranges from 1 to 15, inclusive; n is other than zero; Y is methyl, tert-butyl or C.sub.1 -C.sub.4 alkoxy; Z is hydrogen or methyl; m=9, or; p=1.

3. The sunscreen/cosmetic composition as defined by claim 2, all of said conditions being satisfied.

4. The sunscreen/cosmetic composition as defined by claim 1, said

benzotriazole-substituted polyorganosiloxane having the structural formula (5): ##STR21## wherein 0.ltoreq.r.ltoreq.15; .ltoreq. s.ltoreq.5; and D is the divalent radical: ##STR22##

5. The sunscreen/cosmetic composition as defined by claim 4, wherein formula (5), r=0, s=1 and ##STR23##

6. The sunscreen/cosmetic composition as defined by claim 4, wherein formula (5), r=0, s=1 and D=.brket open-st.CH.sub.2 .brket close-st..sub.3 --.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.1% to 10% by weight of said sulfonic acid compound.

8. The sunscreen/cosmetic composition as defined by claim 7, comprising from 0.2% to 8% by weight of said sulfonic acid compound.

9. The sunscreen/cosmetic composition as defined by claim 7, comprising from 0.1% to 10% by weight of said benzotriazole-substituted polyorganosiloxane.

10. The sunscreen/cosmetic composition as defined by claim 8, comprising from 0.2% to 8% by weight of said benzotriazole-substituted polyorganosiloxane.

11. The sunscreen/cosmetic composition as defined by claim 1, said sulfonic acid compound having the structural formula: ##STR24## in which B is a hydrogen atom, an alkali metal or a radical NH(R).sub.3.sup.+, wherein the radicals R, which may be identical or different, are each a hydrogen atom, a C.sub.1 -C.sub.4 alkyl or hydroxyalkyl radical or a group M.sup.n+ /n, wherein M.sup.n+ is a polyvalent metal cation in which n is equal to 2, 3 or 4.

12. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

13. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

15. The sunscreen/cosmetic composition as defined by claim 14, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

16. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

17. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

18. The sunscreen/cosmetic composition as defined by claim 17, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, a-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**,

filler, sequestering agent, polymer, propellant, **insect repellent**, alkalinizing or acidifying agent, colorant, or mixture thereof.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

20. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

21. The sunscreen/cosmetic composition as defined by claim 20, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

22. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

23. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

24. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

25. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

26. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one UV photoprotective pigment or nanopigment of a metal oxide.

27. The sunscreen/cosmetic composition as defined by claim 26, said at least one pigment or nanopigment comprising an oxide of titanium, zinc, iron, zirconium and/or cerium.

L18 ANSWER 18 OF 29 USPATFULL
AN 97:88727 USPATFULL
TI Amido photostabilization of dibenzoylmethane sunscreens
IN Ascione, Jean-Marc, Paris, France
Forestier, Serge, Claye Souilly, France
Sterle, Pascal, Soisy/Montmorency, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5672337 19970930
AI US 1995-571340 19951212 (8)
PRAI FR 1994-14930 19941212
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelly A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 596
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable photostable sunscreen/cosmetic compositions well suited for the stable photoprotection of human skin and/or hair against

the damaging effects of UV-irradiation, particularly solar radiation, comprise a photoprotecting effective amount of at least one dibenzoylmethane compound and an effective amount of at least one amido compound photostabilizer therefor, in a cosmetically acceptable vehicle, diluent or carrier.

CLM What is claimed is:

1. A topically applicable, photostable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising an effective photoprotecting amount of at least one dibenzoylmethane compound and an effective amount of at least one amido compound photostabilizer therefor, in a cosmetically acceptable vehicle, diluent or carrier.

2. The photostable sunscreen/cosmetic composition as defined by claim 1, said at least one dibenzoyldimethane compound comprising 2-methyldibenzoylmethane, 4-methyldibenzoylmethane, 4-isopropyldibenzoylmethane, 4-tert-butyldibenzoylmethane, 2,4-dimethyldibenzoylmethane, 2,5-dimethyldibenzoylmethane, 4,4'-diisopropyldibenzoylmethane, 4-tert-butyl-4'-methoxydibenzoylmethane, 2-methyl-5-isopropyl-4'-methoxydibenzoylmethane, 2-methyl-5-tert-butyl-4'-methoxydibenzoylmethane, 2,4-dimethyl-4'-methoxydibenzoylmethane or 2,6-dimethyl-4-tert-butyl-4'-methoxydibenzoylmethane.

3. The photostable sunscreen/cosmetic composition as defined by claim 2, said at least one dibenzoylmethane compound comprising 4-(tert-butyl)-4'-methoxydibenzoylmethane or 4-isopropyldibenzoylmethane.

4. The photostable sunscreen/cosmetic composition as defined by claim 3, said at least one dibenzoylmethane compound comprising 4-(tert-butyl)-4'-methoxydibenzoylmethane.

5. The photostable sunscreen/cosmetic composition as defined by claim 1, said at least one amido compound having the following structural formula (1): ##STR8## in which R.sup.1, R.sup.2 and R.sup.3, which may be identical or different, are each a hydrogen atom or a monovalent, saturated or unsaturated, aliphatic or cycloaliphatic or cyclic hydrocarbon radical, optionally comprising at least one other group, and having from 1 to 30 carbon atoms, with the proviso that R.sup.1 may together form, either with R.sup.2 or with R.sup.3, a ring member having from 5 to 18 carbon atoms, and that R.sup.2 and R.sup.3 may together form a ring member having from 5 to 18 carbon atoms.

6. The photostable sunscreen/cosmetic composition as defined by claim 5, wherein formula (1) at least one of the radicals R.sup.2 and R.sup.3 is other than a hydrogen atom.

7. The photostable sunscreen/cosmetic composition as defined by claim 6, wherein formula (1), both of the radicals R.sup.2 and R.sup.3 are other than hydrogen atoms.

8. The photostable sunscreen/cosmetic composition as defined by claim 5, wherein formula (1), at least one of R.sup.1, R.sup.2 and R.sup.3 is a monovalent hydrocarbon radical having from 1 to 22 carbon atoms.

9. The photostable sunscreen/cosmetic composition as defined by claim 5, wherein formula (1), the radical R.sup.1 is a C.sub.1 -C.sub.12 linear or branched alkyl radical, or a phenyl radical optionally substituted by one or more C.sub.1 -C.sub.12 linear or branched alkyl radicals.

10. The photostable sunscreen/cosmetic composition as defined by claim 5, wherein formula (1), the radical R.sup.2 is a C.sub.1 -C.sub.12

linear or branched alkyl radical.

11. The photostable sunscreen/cosmetic composition as defined by claim 5, wherein formula (1), R.sup.3 is a linear or branched alkyl radical, or a monovalent radical containing an ester functional group and having the following structural formula (2): ##STR9## in which R and R', which may be identical or different, are each a hydrocarbon radical having from 1 to 12 carbon atoms.

12. The photostable sunscreen/cosmetic composition as defined by claim 11, wherein formula (2), the radicals R and R' are hydrocarbon radicals having from 1 to 8 carbon atoms.

13. The photostable sunscreen/cosmetic composition as defined by claim 12, said hydrocarbon radicals being alkyl radicals.

14. The photostable sunscreen/cosmetic composition as defined by claim 1, said at least one amido compound comprising an N,N-diethyl-methylbenzamide having the structural formula (3): ##STR10##

15. The photostable sunscreen/cosmetic composition as defined by claim 14, said N,N-diethyl-methylbenzamide comprising N,N-diethyl-3-ethylbenzamide.

16. The photostable sunscreen/cosmetic composition as defined by claim 1, said at least one amido compound comprising ethyl N-butyl, N-acetylaminopropionate.

17. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one N,N-disubstituted amido compound.

18. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one nonemulsifying amido compound.

19. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one N,N-disubstituted nonemulsifying amido compound.

20. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one nonionic amido compound.

21. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one water-insoluble amido compound.

22. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising at least one nonionic, nonemulsifying and water-insoluble amido compound.

23. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising from 0.01% to 10% by weight of said at least one dibenzoylmethane compound relative to the total weight thereof.

24. The photostable sunscreen/cosmetic composition as defined by claim 23, comprising from 0.01% to 50% by weight of said at least one amido compound relative to the total weight thereof.

25. A photostable sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water or water-in-oil emulsion.

26. A photostable sunscreen/cosmetic composition as defined by claim 1, further comprising a UV-B sunscreen.

27. A photostable sunscreen/cosmetic composition as defined by claim 1,

further comprising at least one cosmetically acceptable adjuvant or additive.

28. The photostable sunscreen/cosmetic composition as defined by claim 27, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, demulcent, antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, antifoaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

29. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, cream, milk, gel, cream gel, lotion, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

30. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

31. The photostable sunscreen/cosmetic composition as defined by claim 30, comprising an anhydrous or aqueous solid or paste, emulsion, suspension or dispersion.

32. The photostable sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, hair lacquer, or rinse.

33. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the photostable sunscreen/cosmetic composition as defined by claim 1.

34. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the photostable sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 19 OF 29 USPATFULL
AN 97:86257 USPATFULL
TI Stable nanopigmented sunscreen/cosmetic compositions
IN Allard, Delphine, Colombes, France
Ascione, Jean-Marc, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5670139 19970923
AI US 1995-391355 19950221 (8)
PRAI FR 1994-1861 19940218
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 742
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Stable and homogeneous, topically applicable sunscreen/cosmetic compositions well suited for the photoprotection of human skin and/or hair against the damaging effects of UV-A and/or UV-B irradiation, particularly solar radiation, and which display excellent transparency on the skin, comprise a storage-stable, ultrafine oil-in-water emulsion resistant to phase separation/settling, of a photoprotecting effective

amount of homogeneously and finely dispersed particulates of at least one inorganic nanopigment which comprises a metal oxide, for example titanium dioxide, as well as a stabilizing amount of at least one mixed silicate which comprises alkali and/or alkaline earth metals, and further wherein the average particle size of the globules comprising the oily phase of the emulsion characteristically ranges from 100 nm to 1,000 nm.

CLM What is claimed is:

1. A topically applicable, stable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising a storage-stable, ultrafine oil-in-water emulsion of a photoprotecting effective amount of homogeneously and finely dispersed particulates of at least one inorganic nanopigment which comprises a metal oxide, and a stabilizing amount of at least one mixed silicate which comprises alkali and/or alkaline earth metals wherein the average particle size of the globules comprising the oily phase of said emulsion ranges from 100 nm to 1000 nm.

2. The sunscreen/cosmetic composition as defined by claim 1, the average particle size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 500 nm.

3. The sunscreen/cosmetic composition as defined by claim 1, at least 90% of said globules having a particle size ranging from 100 nm to 1,000 nm.

4. The sunscreen/cosmetic composition as defined by claim 2, at least 90% of said globules having a particle size ranging from 100 nm to 500 nm.

5. The sunscreen/cosmetic composition as defined by claim 1, the average size of the primary particles comprising said nanopigment particulates ranging from 5 nm to 100 nm.

6. The sunscreen/cosmetic composition as defined by claim 5, the average size of the primary particles comprising said nanopigment particulates ranging from 10 nm to 50 nm.

7. The sunscreen/cosmetic composition as defined by claim 1, said at least one inorganic nanopigment comprising an oxide of titanium, zinc, iron, zirconium, or cerium, or mixture thereof.

8. The sunscreen/cosmetic composition as defined by claim 7, said at least one inorganic nanopigment comprising titanium dioxide.

9. The sunscreen/cosmetic composition as defined by claim 8, said at least one inorganic nanopigment comprising particulates of titanium dioxide coated with alumina and/or aluminum stearate and/or silica.

10. The sunscreen/cosmetic composition as defined b claim 8, said at least one inorganic nanopigment comprising a crystalline titanium dioxide.

11. The sunscreen/cosmetic composition as defined by claim 10, said at least one inorganic nanopigment comprising an amorphous titanium dioxide.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one organic UV-A and/or UV-B sunscreen.

13. The sunscreen/cosmetic composition as defined by claim 1, the oily phase of said emulsion comprising a cosmetically acceptable fat, oil, wax, or mixture thereof.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one emulsifying agent.

15. The sunscreen/cosmetic composition as defined by claim 14, comprising from 0.5% to 40% by weight thereof of said at least one emulsifying agent.

16. The sunscreen/cosmetic composition as defined by claim 15, comprising from 2% to 10% by weight thereof of said at least one emulsifying agent.

17. The sunscreen/cosmetic composition as defined by claim 1, the aqueous phase of said emulsion comprising water, admixture of water and at least one polyhydric alcohol, or admixture of water and at least one water-soluble lower alcohol.

18. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

19. The sunscreen/cosmetic composition as defined by claim 18, said at least one adjuvant or additive comprising an ionic or nonionic **thickener**, demulcent, antioxidant, opacifier, stabilizer, emollient, **insect repellent**, hydrating agent, filler, vitamin, perfume, **preservative**, sequestering agent, colorant, or mixture thereof.

20. The sunscreen/cosmetic composition as defined by claim 1, the aqueous phase of said emulsion comprising from 50% to 95% by weight thereof.

21. The sunscreen/cosmetic composition as defined by claim 20, the aqueous phase of said emulsion comprising from 70% to 90% by weight thereof.

22. The sunscreen/cosmetic composition as defined by claim 20, the oily phase of said emulsion comprising from 5% to 50% by weight thereof.

23. The sunscreen/cosmetic composition as defined by claim 21, the oily phase of said emulsion comprising from 10% to 30% by weight thereof.

24. The sunscreen/cosmetic composition as defined by claim 22, the nanopigment particulates comprising from 0.5% to 40% by weight thereof.

25. The sunscreen/cosmetic composition as defined by claim 24 said nanopigment particulates comprising from 1% to 30% by weight thereof.

26. The sunscreen/cosmetic composition as defined by claim 21 the at least one mixed silicate comprising from 0.05% to 5% by weight thereof.

27. The sunscreen/cosmetic composition as defined by claim 26, said at least one mixed silicate comprising from 0.1% to 3.5% by weight thereof.

28. The sunscreen/cosmetic composition as defined by claim 1, said at least one mixed silicate comprising lithium, sodium and/or potassium values.

29. The sunscreen/cosmetic composition as defined by claim 1, said at least one mixed silicate comprising magnesium and/or calcium values.

30. The sunscreen/cosmetic composition as defined by claim 1, said at least one mixed silicate comprising at least one alkali metal.

31. The sunscreen/cosmetic composition as defined by claim 1, said at least one mixed silicate comprising magnesium, lithium and sodium values.

32. A process for the preparation of the sunscreen/cosmetic composition as defined by claim 1, comprising (i) emulsifying the aqueous phase into the oil phase thereof, at a temperature above the phase inversion temperature of the medium, (ii) cooling the water-in-oil emulsion thus obtained to a temperature below said phase inversion temperature, thereby converting said water-in-oil emulsion into said ultrafine oil-in-water emulsion, and (iii) introducing said nanopigment particulates and said at least one mixed silicate into the medium of emulsion either during the step (i) and/or after the step (ii).

33. The process as defined by claim 32, wherein step (i) is carried out in the presence of an effective emulsifying amount of at least one nonionic **surfactant**.

34. The process as defined by claim 33, said at least one nonionic **surfactant** comprising a polyoxyethylenated and/or polyoxypropylenated fatty alcohol, an optionally polyoxyethylenated and/or polyoxypropylenated fatty acid ester of a polyol, or mixture thereof.

35. The process as defined by claim 32, wherein the step (i) medium of emulsion has an overall HLB ranging from about 9.5 to 11.5.

36. The process as defined by claim 35, said overall HLB being approximately 10.

37. The sunscreen/cosmetic composition prepared by the process as defined by claim 32.

38. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

39. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

40. The sunscreen/cosmetic composition as defined by claim 1, comprising a cream, gel, milk or lotion.

L18 ANSWER 20 OF 29 USPATFULL
AN 97:83598 USPATFULL
TI Photoprotective/cosmetic compositions comprising at least one solid organic sunscreen compound and salicylate solvents therefor
IN Hansenne, Isabelle, Paris, France
van Leeuwen, Victoria, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5667765 19970916
AI US 1995-461015 19950605 (8)
PRAI FR 1994-6830 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 24
ECL Exemplary Claim: 1

DRWN No Drawings
LN.CNT 495
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of at least one of the sunscreen compounds 4-methylbenzylidenecamphor and/or 4-(tert-butyl)-4'-methoxydibenzoylmethane and (ii) at least one homomenthyl and/or octyl salicylate sunscreen solvent, in an amount sufficient to substantially completely dissolve the total amount of the at least one sunscreen compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefore.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of at least one of the sunscreen compounds 4-methylbenzylidenecamphor and/or 4-(tert-butyl)-4'-methoxydibenzoylmethane and (ii) at least one homomenthyl and/or octyl salicylate sunscreen solvent, wherein said solvent, by itself, is contained in an amount sufficient to substantially completely dissolve the total amount of said at least one sunscreen compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising (i) a photoprotecting effective amount of a mixture of said 4-methylbenzylidenecamphor compound and said 4-(tert-butyl)-4'-methoxydibenzoylmethane compound.

3. The sunscreen/cosmetic composition as defined by claim 1, substantially devoid of any solvent for said at least one sunscreen compound (i), other than said at least one homomenthyl and/or octyl salicylate solvent (ii).

4. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.25% to 15% by weight of said at least one sunscreen compound (i).

5. The sunscreen/cosmetic composition as defined by claim 4, comprising from 0.5% to 20% by weight of said at least one homomenthyl and/or octyl salicylate solvent (ii).

6. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

8. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

9. The sunscreen/cosmetic composition as defined by claim 8, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

10. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

11. The sunscreen/cosmetic composition as defined by claim 10, said at

least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

13. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

14. The sunscreen/cosmetic composition as defined by claim 13, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

15. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

17. The sunscreen/cosmetic composition as defined by claim 16, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

18. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

19. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

20. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

21. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

22. The composition of claim 1, wherein the only solvent present is homomenthyl salicylate.

23. The composition of claim 22, wherein the amount of said solvent ranges from 0.5% to 20% by weight of said compound.

24. A method for protecting human hair and/or skin against the deleterious effects of solar radiation comprising topically applying thereto an effective amount of a sunscreen/cosmetic composition according to claim 22.

L18 ANSWER 21 OF 29 USPATFULL
AN 97:73274 USPATFULL

TI Photoprotective/cosmetic compositions comprising synergistic admixture of sunscreen compounds/nanopigments
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
PA Societe L'Oreal S.A., Paris, France (non-U.S. corporation)
PI US 5658555 19970819
AI US 1995-463304 19950605 (8)
PRAI FR 1994-6832 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 530
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise a photoprotecting synergistically effective amount of (i) 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and benzene-1,4-di(3-methylidene-10-camphorsulfonic)acid, optionally either partially or totally neutralized, together with photoprotecting synergistically effective amounts of (ii) particulates of at least one inorganic nanopigment which comprises a metal oxide, in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising photoprotecting synergistically effective amounts of (i) 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and benzene-1,4-di(3-methylidene-10-camphorsulfonic)acid, optionally either partially or totally neutralized, together with photoprotecting synergistically effective amounts of (ii) particulates of at least one inorganic nanopigment which comprises a metal oxide, in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.1% to 10% by weight of said triazine compound.

3. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 5% by weight of said triazine compound.

4. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.2% to 15% by weight of said sulfonic acid compound.

5. The sunscreen/cosmetic composition as defined by claim 3, comprising from 0.5% to 10% by weight of said sulfonic acid compound.

6. The sunscreen/cosmetic composition as defined by claim 1, said at least one inorganic nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

7. The sunscreen/cosmetic composition as defined by claim 6, said at least one inorganic nanopigment comprising coated or uncoated titanium dioxide.

8. The sunscreen/cosmetic composition as defined by claim 7, said at least one inorganic nanopigment comprising futile, anatase or amorphous titanium dioxide.

9. The sunscreen/cosmetic composition as defined by claim 1, comprising

from 0.1% to 30% by weight of said at least one inorganic nanopigment (ii).

10. The sunscreen/cosmetic composition as defined by claim 9, comprising from 1% to 20% by weight of said at least one inorganic nanopigment (ii).

11. The sunscreen/cosmetic composition as defined by claim 1, said sulfonic acid compound having the structural formula: ##STR3## in which A is a hydrogen atom, an alkali metal or a radical NH(R).sub.3.sup.+, wherein the radicals R, which may be identical or different, are each a hydrogen atom, a C.sub.1 -C.sub.4 alkyl or hydroxyalkyl radical or a group M.sup.n+ /n, wherein M.sup.n+ is a polyvalent metal cation in which n is equal to 2, 3 or 4.

12. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

13. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

15. The sunscreen/cosmetic composition as defined by claim 14, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

16. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

17. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

18. The sunscreen/cosmetic composition as defined by claim 17, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

20. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

21. The sunscreen/cosmetic composition as defined by claim 20, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

22. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair

lacquer, or rinse.

23. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

24. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

25. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 22 OF 29 USPATFULL
AN 97:26924 USPATFULL
TI Storage-stable, ultrafine oil-in-water emulsion nanopigmented sunscreen/cosmetic compositions
IN Allard, Delphine, Colombes, France
Ascione, Jean-Marc, Paris, France
Hansenne, Isabelle, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5616331 19970401
AI US 1995-386092 19950209 (8)
PRAI FR 1994-1455 19940209
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Faulkner, D.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 694
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Stable and homogeneous, topically applicable sunscreen/cosmetic compositions well suited for the photoprotection of human skin and/or hair against the damaging effects of UV-A and/or UV-B irradiation, particularly solar radiation, and which display excellent transparency on the skin, comprise a storage-stable, ultrafine oil-in-water emulsion of a photoprotecting effective amount of homogeneously and finely dispersed particulates of at least one inorganic nanopigment which comprises a metal oxide, for example titanium dioxide, wherein the average particle size of the globules comprising the oily phase of the emulsion characteristically range from 100 nm to 1,000 nm.
CLM What is claimed is:
1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising a storage-stable, ultrafine oil-in-water emulsion of a photoprotecting effective amount of homogeneously and finely dispersed particulates of at least one inorganic nanopigment which comprises a metal oxide.

2. The sunscreen/cosmetic composition as defined by claim 1, the average particle size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 1,000 nm.

3. The sunscreen/cosmetic composition as defined by claim 2, the average particle size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 500 nm.

4. The sunscreen/cosmetic composition as defined by claim 2, at least 90% of said globules having a particle size ranging from 100 nm to 1,000

nm.

5. The sunscreen/cosmetic composition as defined by claim 3, at least 90% of said globules having a particle size ranging from 100 nm to 500 nm.

6. The sunscreen/cosmetic composition as defined by claim 2, the average size of the primary particles comprising said nanopigment particulates ranging from 5 nm to 100 nm.

7. The sunscreen/cosmetic composition as defined by claim 6, the average size of the primary particles comprising said nanopigment particulates ranging from 10 nm to 50 nm.

8. The sunscreen/cosmetic composition as defined by claim 2, said at least one inorganic nanopigment comprising an oxide of titanium, zinc, iron, zirconium, or cerium, or mixture thereof.

9. The sunscreen/cosmetic composition as defined by claim 8, said at least one inorganic nanopigment comprising titanium dioxide.

10. The sunscreen/cosmetic composition as defined by claim 9, said at least one inorganic nanopigment comprising particulates of titanium dioxide coated with alumina and/or aluminum stearate.

11. The sunscreen/cosmetic composition as defined by claim 9, said at least one inorganic nanopigment comprising a crystalline titanium dioxide.

12. The sunscreen/cosmetic composition as defined by claim 11, said at least one inorganic nanopigment comprising an amorphous titanium dioxide.

13. The sunscreen/cosmetic composition as defined by claim 2, further comprising at least one organic UV-A and/or UV-B sunscreen.

14. The sunscreen/cosmetic composition as defined by claim 2, the oily phase of said emulsion comprising a cosmetically acceptable fat, oil, wax, or mixture thereof.

15. The sunscreen/cosmetic composition as defined by claim 2, further comprising at least one emulsifying agent.

16. The sunscreen/cosmetic composition as defined by claim 15, comprising from 0.5% to 40% by weight thereof of said at least one emulsifying agent.

17. The sunscreen/cosmetic composition as defined by claim 16, comprising from 2% to 10% by weight thereof of said at least one emulsifying agent.

18. The sunscreen/cosmetic composition as defined by claim 2, the aqueous phase of said emulsion comprising water, admixture of water and at least one polyhydric alcohol, or admixture of water and at least one water-soluble lower alcohol.

19. The sunscreen/cosmetic composition as defined by claim 2, further comprising at least one cosmetically acceptable adjuvant or additive.

20. The sunscreen/cosmetic composition as defined by claim 19, said at least one adjuvant or additive comprising an ionic or nonionic **thickener**, demulcent, antioxidant, opacifier, stabilizer, emollient, **insect repellent**, hydrating agent,

filler, vitamin, perfume, **preservative**, sequestering agent, colorant, or mixture thereof.

21. The sunscreen/cosmetic composition as defined by claim 2, the aqueous phase of said emulsion comprising from 50% to 95% by weight thereof.

22. The sunscreen/cosmetic composition as defined by claim 21, the aqueous phase of said emulsion comprising from 70% to 90% by weight thereof.

23. The sunscreen/cosmetic composition as defined by claim 21, the oily phase of said emulsion comprising from 5% to 50% by weight thereof.

24. The sunscreen/cosmetic composition as defined by claim 22, the oily phase of said emulsion comprising from 10% to 30% by weight thereof.

25. The sunscreen/cosmetic composition as defined by claim 23, the nanopigment particulates comprising from 0.5% to 40% by weight thereof.

26. The sunscreen/cosmetic composition as defined by claim 25, said nanopigment particulates comprising from 1% to 30% by weight thereof.

27. The sunscreen/cosmetic composition prepared by a process comprising the following steps (i) emulsifying the aqueous phase into the oil phase thereof, at a temperature above the phase inversion temperature of the medium, (ii) cooling the water-in-oil emulsion thus obtained to a temperature below said phase inversion temperature, thereby converting said water-in-oil emulsion into said ultrafine oil-in-water emulsion, and (iii) introducing said nanopiqment particulates into the medium of emulsion either during the step (i) and/or after the step (ii).

28. The sunscreen/cosmetic composition as defined by claim 1, comprising a cream, gel, milk or lotion.

29. A sunscreen/cosmetic composition produced according to claim 27.

30. A sunscreen/cosmetic composition according to claim 27, said at least one nonionic **surfactant** comprising a polyoxyetylenated and/or polyoxypropylenated fatty alcohol, an optionally polyoxyethylenated and/or polyoxypropylenated fatty acid ester of a polyol, or mixture thereof.

31. A sunscreen/cosmetic composition according to claim 27, where in step (i) the medium of emulsion has an overall HLB ranging from 9.5 to 11.5.

32. A sunscreen/cosmetic composition according to claim 30, said overall HLB being approximately 10.

33. The sunscreen/cosmetic composition of claim 27, the average possible size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 1000 nm.

34. The sunscreen/cosmetic composition of claim 33, the average particle size of the globules comprising the oily phase of said emulsion ranging from 100 nm to 500 nm.

L18 ANSWER 23 OF 29 USPATFULL
AN 97:20227 USPATFULL
TI Photoprotective/cosmetic compositions comprising synergistic admixture of sunscreen compounds

IN Hansenne, Isabelle, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5609853 19970311
AI US 1995-464940 19950605 (8)
PRAI FR 1994-6829 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 523
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise a photoprotecting synergistically effective amount of (i) benzene-1,4-di(3-methylidene-10-camphorsulfonic)acid, optionally either partially or totally neutralized, and (ii) 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate, in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising a photoprotecting synergistically effective amount of (i) benzene-1,4-di(3-methylidene-10-camphorsulfonic)acid, optionally either partially or totally neutralized, and (ii) 2-ethylhexyl .alpha.-cyano,.beta.,.beta.-diphenylacrylate, in a cosmetically acceptable vehicle, diluent or carrier therefor, wherein said composition optionally contains additional sunscreen compounds, adjuvants and/or additives, with the proviso that if such additional sunscreen compounds, adjuvants and/or additives are present, that said additional compounds do not substantially adversely affect the synergistic photoprotection achieved by the combination of said sulfonic acid compound (i) and said diphenylacrylate compound (ii).

2. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.2% to 10% by weight of said sulfonic acid compound (i).

3. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 20% by weight of said diphenylacrylate compound (ii).

4. The sunscreen/cosmetic composition as defined by claim 1, wherein the ratio by weight of said diphenylacrylate compound (ii) to said sulfonic acid compound (i) ranges from 0.25 to 8.

5. The sunscreen/cosmetic composition as defined by claim 4, said ratio by weight ranging from 0.5 to 7.

6. The sunscreen/cosmetic composition as defined by claim 5, said ratio by weight ranging from 1 to 5.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

8. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

9. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

10. The sunscreen/cosmetic composition as defined by claim 9, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

11. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

12. The sunscreen/cosmetic composition as defined by claim 11, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

13. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

15. The sunscreen/cosmetic composition as defined by claim 14, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

17. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

18. The sunscreen/cosmetic composition as defined by claim 17, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

20. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

21. The sunscreen/cosmetic composition as defined by claim 1, said sulfonic acid compound (i) having the structural formula (I): ##STR3## in which A is a hydrogen atom, an alkali metal or a radical NH(R).sub.3.sup.+, wherein the radicals R which may be identical or different, are each a hydrogen atom or a C.sub.1 -C.sub.4 hydroxyalkyl or alkyl radical, or a group M.sup.n+, wherein M.sup.n+ is a polyvalent metal cation in which n is equal to 2, 3 or 4.

22. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

23. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

24. The topically applicable sunscreen/cosmetic composition of claim 1 which does not contain any sunscreen compounds which adversely affect the synergistic photoprotection achieved by the combination of said (i) sulfonic acid compound, and said (ii) diphenylacrylate compound.

25. The topically applicable sunscreen/cosmetic composition of claim 24 which does not contain 4-tert-butyl-yl-4-methoxydibenzoyl-methane.

L18 ANSWER 24 OF 29 USPATFULL
AN 97:17891 USPATFULL
TI Photoprotective/cosmetic compositions comprising UV-A and/or UV-B sunscreens and polymers compatible therewith
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
Hansenne, Isabelle, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5607664 19970304
AI US 1995-463221 19950605 (8)
PRAI FR 1994-6836 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 496
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of at least one organic or inorganic UV screen, or mixture thereof, and (ii) at least one polymer compatible therewith, said at least one polymer comprising recurring structural units of the following formula (I) and recurring structural units of the following formulae (II) and/or (III): ##STR1## in a cosmetically acceptable vehicle, diluent or carrier therefor which comprises a continuous aqueous phase.
CLM What is claimed is:
1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of at least one organic or inorganic UV screen, or mixture thereof, and (ii) at least one polymer compatible therewith, said at least one polymer comprising recurring structural units of the following formula (I) and recurring structural units of the following formulae (II) and/or (III): ##STR3## in which a is an integer equal to 0 or 1, R.sub.1, R.sub.2, R.sub.3 and R.sub.4, which may be identical or different, are each hydrogen atoms or a C.sub.1 -C.sub.4 alkyl radical, R.sub.5 is a CH.sub.3 CO-- radical or a radical R.sub.6 --(OC.sub.2 H.sub.5).sub.b --, wherein R.sub.6 is a C.sub.2 -C.sub.20 alkyl radical, and b is an integer ranging from 1 to 20, inclusive, with the proviso that, when the polymer is devoid of recurring structural units of formula (II), the radicals R.sub.2 and R.sub.4 cannot simultaneously be hydrogen atoms, in a cosmetically acceptable vehicle, diluent or carrier therefor which comprises a continuous aqueous phase.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.05% to 15% by weight of said at least one polymer (ii).

3. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.1% to 4% by weight of said at least one polymer (ii).

4. The sunscreen/cosmetic composition as defined by claim 1, comprising (i) a photoprotecting effective amount of at least one UV absorbing organic sunscreen and/or at least one inorganic (nano)pigment.

5. The sunscreen/cosmetic composition as defined by claim 4, comprising at least one inorganic (nano)pigment based on the oxides of titanium, zinc, iron, zirconium or cerium, or mixtures thereof.

6. The sunscreen/cosmetic composition as defined by claim 5, comprising at least one inorganic nanopigment.

7. The sunscreen/cosmetic composition as defined by claim 6, said at least one inorganic nanopigment comprising titanium dioxide.

8. The sunscreen/cosmetic composition as defined by claim 7, comprising rutile, anatase or amorphous titanium dioxide.

9. The sunscreen/cosmetic composition as defined by claim 4, comprising from 0.1% to 30% by weight of at least one inorganic (nano)pigment.

10. The sunscreen/cosmetic composition as defined by claim 9, comprising from 1% to 20% by weight of said at least one (nano)pigment.

11. The sunscreen/cosmetic composition as defined by claim 4, comprising from 0.1% to 30% by weight of at least one UV absorbing organic sunscreen.

12. The sunscreen/cosmetic composition as defined by claim 1, said at least one polymer (ii) comprising a crosslinked terpolymer of methacrylic acid/ethyl acrylate/steareth-10 allyl ether, a crosslinked copolymer of acrylic acid/vinyl acetate, or a crosslinked copolymer of acrylic acid/ethyl acrylate.

13. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

14. The sunscreen/cosmetic composition as defined by claim 4, comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta., .beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

15. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

16. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

17. The sunscreen/cosmetic composition as defined by claim 16, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative, surfactant,** filler, sequestering agent, polymer, propellant, **insect**

repellent, basifying or acidifying agent, dye, colorant, or mixture thereof.

18. The sunscreen/cosmetic composition as defined by claim 1, comprising a cream, milk, gel, cream gel, ointment, foam, mousse or **spray**.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

20. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

21. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

22. The sunscreen/cosmetic composition of claim 1, wherein the polymer is one which imparts a viscosity of at least 5 poises to an aqueous medium when introduced at a concentration ranging from about 0.2% to 2% by weight.

23. The sunscreen/cosmetic composition of claim 1, wherein if the polymer is devoid of recurring structural units of formula (II), then the polymer consists substantially of recurring structural units of formula (I) and recurring structural units of formula (III), wherein in said monomers the radicals R.sub.2 and R.sub.4 cannot simultaneously be hydrogen atoms.

24. The sunscreen/cosmetic composition of claim 1, wherein if the polymer is devoid of recurring structural units of formula (II), then the polymer consists essentially of recurring structural units of formula (I) and recurring structural units of formula (III), wherein in said monomers the radicals R.sub.2 and R.sub.4 cannot simultaneously be hydrogen atoms.

L18 ANSWER 25 OF 29 USPATFULL
AN 97:15842 USPATFULL
TI Photoprotective/cosmetic compositions comprising at least one solid organic sunscreen compound and diphenylacrylate solvent therefor
IN Hansenne, Isabelle, Paris, France
Van Leeuwen, Victoria, Paris, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5605679 19970225
AI US 1995-463762 19950605 (8)
PRAI FR 1994-6833 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 485
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of 4-

methylbenzylidenecamphor and, optionally, of 4-(tert-butyl)-4'-methoxydibenzoylmethane and (ii) a 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate sunscreen solvent, in an amount sufficient to substantially completely dissolve the total amount of the sunscreen constituent (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of 4-methylbenzylidenecamphor and, optionally, of 4-(tert-butyl)-4'-methoxydibenzoylmethane and (ii) a 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate sunscreen solvent, in an amount sufficient to substantially completely dissolve the total amount of the sunscreen constituent (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising (i) a photoprotecting effective amount of a mixture of said 4-methylbenzylidenecamphor compound and said 4-(tert-butyl)-4'-methoxydibenzoylmethane compound.

3. The sunscreen/cosmetic composition as defined by claim 1, substantially devoid of any solvent for said sunscreen constituent (i), other than said 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate solvent (ii).

4. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.5% to 10% by weight of said 4-methylbenzylidenecamphor sunscreen compound.

5. The sunscreen/cosmetic composition as defined by claim 4, comprising from 2% to 15% by weight of said 2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate solvent (ii).

6. The sunscreen/cosmetic composition as defined by claim 1, wherein the ratio by weight [(2-ethylhexyl .alpha.-cyano-.beta.,.beta.-diphenylacrylate)/4-methylbenzylidenecamphor)] ranges from 0.3 to 30.

7. The sunscreen/cosmetic composition as defined by claim 6, said ratio by weight being greater than 5.

8. The sunscreen/cosmetic composition as defined by claim 7, said ratio by weight being less than 25.

9. The sunscreen/cosmetic composition as defined by claim 8, said ratio by weight being less than 10.

10. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

11. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

13. The sunscreen/cosmetic composition as defined by claim 12, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

15. The sunscreen/cosmetic composition as defined by claim 14, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

16. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

17. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

18. The sunscreen/cosmetic composition as defined by claim 17, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

20. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

21. The sunscreen/cosmetic composition as defined by claim 20, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

22. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

23. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

24. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

25. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 26 OF 29 USPATFULL
AN 97:15841 USPATFULL
TI Photoprotective/cosmetic compositions comprising 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine andoily esters
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
Hansenne, Isabelle, Paris, France

PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5605678 19970225
AI US 1995-463505 19950605 (8)
PRAI FR 1994-68835 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Dodson, Shelley A.
LREP Burns, Doane, Swecker & Mathis, L.L.P.
CLMN Number of Claims: 28
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Topically applicable sunscreen/cosmetic compositions having improved cosmetic properties and well suited for enhanced photoprotection of human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) at least one oil selected from among the esters of the structural formulae (I), (II) and (III): ##STR1## in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) at least one oil selected from among the esters having the following structural formulae (I), (II) or (III): ##STR11## in which formula (I) a and b are integers equal to 0 or 1, but cannot simultaneously be equal to 0, R is a linear or branched C.sub.6 -C.sub.12 alkyl radical and A is a linear or branched C.sub.3 -C.sub.12 alkylene radical; ##STR12## in which formula (II) c, d and e are integers ranging from 0 to 30, inclusive, the sum c+d+e being at least 8, R.sub.1 is an aroyl radical or a linear or branched C.sub.10 -C.sub.18 alkyl radical and R.sub.2 is hydrogen or a radical --CH.sub.2 --COOR.sub.3, wherein R.sub.3 is a linear or branched C.sub.3 -C.sub.18 alkyl radical, with the provisio that, when R.sub.1 is an alkyl radical, then R.sub.2 cannot be hydrogen; ##STR13## in which formula (III) f and g are integers equal to 0 or 1, but cannot simultaneously be equal to 0, R.sub.4 is a linear or branched C.sub.10 -C.sub.22 alkyl radical and R.sub.5 is hydrogen or a radical --COOR.sub.6, wherein R.sub.6 is a linear or branched C.sub.10 -C.sub.22 alkyl radical; in a cosmetically acceptable vehicle, carrier or diluent therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, at least one oil (ii) having the structural formula (I).

3. The sunscreen/cosmetic composition as defined by claim 1, at least one oil (ii) having the structural formula (II).

4. The sunscreen/cosmetic composition as defined by claim 1, at least one oil (ii) having the structural formula (III).

5. The sunscreen/cosmetic composition as defined by claim 1, said at least one oil comprising di(2-ethylhexyl) adipate, neopentyl glycol diisooctanoate, polyoxyethylene(8 EO) oxypropylene(30 PO) oxyethylene(8 EO) benzoate, polyoxyethylene(11 EO)oxypropylene-(16 PO) oxyethylene(11 EO) benzoate, cetyl C.sub.12 -C.sub.15 Pareth-9 carboxylate, isopropyl C.sub.12 -C.sub.15 Pareth-9 carboxylate, isopropyl PPG-2 isodeceth-7 carboxylate, the malate of a C.sub.12 /C.sub.13 alcohol or the citrate of a C.sub.12 /C.sub.13 alcohol.

6. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.1% to 10% by weight of said triazine compound (i).

7. The sunscreen/cosmetic composition as defined by claim 6, comprising from 0.5% to 5% by weight of said triazine compound (i).

8. The sunscreen/cosmetic composition as defined by claim 6, comprising from 0.5% to 50% by weight of said at least one oil (ii).

9. The sunscreen/cosmetic composition as defined by claim 7, comprising from 2% to 30% by weight of said at least one oil (ii).

10. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

11. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

13. The sunscreen/cosmetic composition as defined by claim 12, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

14. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

15. The sunscreen/cosmetic composition as defined by claim 14, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

16. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

17. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

18. The sunscreen/cosmetic composition as defined by claim 17, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant, antifree-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

19. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

20. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

21. The sunscreen/cosmetic composition as defined by claim 20,

comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

22. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

23. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

24. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

25. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

26. The sunscreen/cosmetic composition of claim 2, wherein the oil having structural formula (I) is selected from the group consisting of di(2-ethylhexyl) adipate and neopentyl glycol diisooctanoate.

27. The sunscreen/cosmetic composition of claim 3, wherein the oil having structural formulae (II) is selected from the group consisting of polyoxyethylene(8 EO)oxypropylene -(30 PO)-oxyethylene(8 EO) benzoate, polyoxyethylene (11 EO) oxypropylene-(16 PO)oxyethylene (11 EO) benzoate, cetyl C.sub.12 -C.sub.15 Pareth-9 carboxylate, isopropyl C.sub.12 -C.sub.15 Pareth-9 carboxylate, and isopropyl PPG-2 isodeceth-7 carboxylate.

28. The sunscreen cosmetic composition of claim 4, wherein the oil having structural formulae (III) is selected from the group consisting of the malate of C.sub.12 /C.sub.13 alcohol wherein f=0, g=1, R.sub.5 =H and R.sub.4 is a radical of the following formula wherein m+n=8 or 9: ##STR14## the citrate of C.sub.12 /C.sub.13 alcohol wherein f=g=1, R.sub.4 is the R.sub.4 having the above formula and R.sub.5 is a radical of the following formula wherein m+n ##STR15##

L18 ANSWER 27 OF 29 USPATFULL
AN 96:10980 USPATFULL
TI Photoprotective/cosmetic compositions comprising 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and dioctyl malate
IN Ascione, Jean-Marc, Paris, France
Allard, Delphine, Colombes, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5489431 19960206
AI US 1995-463503 19950605 (8)
PRAI FR 1994-6834 19940603
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Howard, Sharon L.
LREP Burns,Doane, Swecker & Mathis
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 444
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Topically applicable sunscreen/cosmetic compositions having improved cosmetic properties and well suited for enhanced photoprotection of

human skin and/or hair against the damaging effects of UV-A and UV-B irradiation, particularly solar radiation, comprise (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) the oil dioctyl malate, in an amount effective to itself substantially dissolve the total amount of triazine compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

CLM What is claimed is:

1. A topically applicable sunscreen/cosmetic composition adopted for the photoprotection of human skin and/or hair, comprising (i) a photoprotecting effective amount of 2,4,6-tris[p-((2'-ethylhexyl)oxycarbonyl)anilino]-1,3,5-triazine and (ii) the oil dioctyl malate, in an amount effective to itself substantially dissolve the total amount of said triazine compound (i), in a cosmetically acceptable vehicle, diluent or carrier therefor.

2. The sunscreen/cosmetic composition as defined by claim 1, comprising from 0.1% to 10% by weight of said triazine compound (i).

3. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 5% by weight of said triazine compound (i).

4. The sunscreen/cosmetic composition as defined by claim 2, comprising from 0.5% to 50% by weight of said dioctyl malate (ii).

5. The sunscreen/cosmetic composition as defined by claim 3, comprising from 2% to 30% by weight of said dioctyl malate (ii).

6. The sunscreen/cosmetic composition as defined by claim 1, comprising an oil-in-water emulsion.

7. The sunscreen/cosmetic composition as defined by claim 1, comprising a water-in-oil emulsion.

8. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one additional hydrophilic or lipophilic organic UV-A and/or UV-B sunscreen.

9. The sunscreen/cosmetic composition as defined by claim 8, further comprising at least one cinnamic derivative, salicylic derivative, camphor derivative, triazine derivative, benzophenone derivative, dibenzoylmethane derivative, .beta.,.beta.-diphenylacrylate derivative, p-aminobenzoic acid derivative, sunscreen polymer, or sunscreen silicone.

10. The sunscreen/cosmetic composition as defined by claim 1, further comprising a photoprotecting effective amount of particulates of at least one inorganic pigment or nanopigment.

11. The sunscreen/cosmetic composition as defined by claim 10, said at least one pigment or nanopigment comprising titanium dioxide, zinc oxide, iron oxide, zirconium oxide, cerium oxide, or mixture thereof.

12. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one active agent for the artificial tanning and/or browning of human skin.

13. The sunscreen/cosmetic composition as defined by claim 1, further comprising at least one cosmetically acceptable adjuvant or additive.

14. The sunscreen/cosmetic composition as defined by claim 13, said at least one adjuvant or additive comprising a fat, organic solvent, ionic or nonionic **thickening** agent, softener, antioxidant,

anti-free-radical antioxidant, opacifying agent, stabilizing agent, emollient, silicone, .alpha.-hydroxy acid, anti-foaming agent, hydrating agent, vitamin, fragrance, **preservative**, **surfactant**, filler, sequestering agent, polymer, propellant, **insect repellent**, basifying or acidifying agent, dye, colorant, or mixture thereof.

15. The sunscreen/cosmetic composition as defined by claim 1, comprising a nonionic vesicle dispersion, emulsion, cream, milk, gel, cream gel, ointment, suspension, dispersion, powder, solid stick, foam or **spray**.

16. The sunscreen/cosmetic composition as defined by claim 1, comprising a makeup.

17. The sunscreen/cosmetic composition as defined by claim 16, comprising an anhydrous or aqueous solid or paste, emulsion, suspension, or dispersion.

18. The sunscreen/cosmetic composition as defined by claim 1, comprising a shampoo, lotion, gel, emulsion, nonionic vesicle dispersion, hair lacquer, or rinse.

19. The sunscreen/cosmetic composition as defined by claim 1, having a sun protection factor of at least 2.

20. A method for protecting human skin and/or hair against the deleterious effects of ultraviolet irradiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

21. A method for protecting human skin and/or hair against the deleterious effects of solar radiation, comprising topically applying thereto an effective amount of the sunscreen/cosmetic composition as defined by claim 1.

L18 ANSWER 28 OF 29 USPATFULL
AN 94:97334 USPATFULL
TI Cosmetic, dermo-pharmaceutical or vesicle-containing composition including clycerol-derived compounds
IN Zysman, Alexandre, Paris, France
Sebag, Henri, Paris, France
Ribier, Alain, Paris, France
Vanlerberghe, Guy, Villevaude, France
Mahieu, Claude, Paris, France
Berthelot, Claude, Les Pavillons Sous Bois, France
PA L'Oreal, Paris, France (non-U.S. corporation)
PI US 5362494 19941108
AI US 1992-910174 19920714 (7)
PRAI FR 1990-14149 19901114
FR 1991-10128 19910808
DT Utility
FS Granted
EXNAM Primary Examiner: Lovering, Richard D.
LREP Cushman, Darby & Cushman
CLMN Number of Claims: 18
ECL Exemplary Claim: 1,9
DRWN No Drawings
LN.CNT 1389
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
CLM What is claimed is:
1. A cosmetic or dermopharmaceutical composition comprising as a

surfactant, at least one nonionic amphiphilic compound having formula (I): ##STR30## wherein R represents a radical selected from the group consisting of (i) a linear or branched C.sub.4 -C.sub.28 alkyl or alkenyl, or a mixture thereof, and (ii) --CH.sub.2 A wherein A represents --OR', --SR' or ##STR31## wherein R' represents a saturated or unsaturated hydrocarbon, and n represents an average statistical value n greater than 1 and equal to not more than 6 and, when R represents --CH.sub.2 A, n also represents a value equal to 2.

2. The composition of claim 1 which also contains an ionic **surfactant**; a nonionic **surfactant** other than the compound of formula (I); a natural or synthetic, ionic or nonionic polymer; an oil; a wax; a hydrolyzed protein; a **thickener**; a pearlescent agent; an emollient; a hydrating agent; a colorant; a reducing agent; an oxidizing agent; a **preservative**; a perfume; an anti-UV screening agent; a solvent; a propellant; a pharmaceutically active product; or a parapharmaceutically active product.

3. The composition of claim 1 wherein said compound of formula (I) is present in an amount ranging from 0.5 to 50 weight percent.

4. The composition of claim 1 wherein said compound of formula (I) is present in an amount ranging from 0.5 to 25 weight percent.

5. The composition of claim 1 which also contains (i) a cosmetic active compound, (ii) a dermopharmaceutical active compound, or both (i) and (ii).

6. The composition of claim 5 wherein said cosmetic active compound or said dermopharmaceutical active compound is selected from the group consisting of an antioxidant or free-radical inhibitor; a hydrating or humectant agent; a tanning agent; a depigmenting agent; a skin coloration agent; a liporegulator; an anti-aging or anti-wrinkle agent; an anti-UV agent; a keratolytic agent; an emollient; an anti-inflammatory agent; a refreshing agent; a cicatrizing agent; a vasoprotective agent; an antibacterial agent; an antifungal agent; an **insect repellant** agent; an antiperspirant agent; a deodorant agent; an anti-dandruff agent; an agent for combatting hair loss; a hair dye; a hair bleaching agent; a reducing agent for permanent waving of hair; and a hair conditioner.

7. The composition of claim 1 which contains at least one formulation additive having neither cosmetic activity nor dermopharmaceutical activity.

8. The composition of claim 7 wherein said formulation additive is selected from the group consisting of a gelling agent, a polymer, a **preservative**, a colorant, an opacifier and a perfume.

9. A composition comprising a dispersion in an aqueous medium of vesicles bounded by one or more lamellae of a lipid phase containing at least one nonionic amphiphilic compound having formula (I): ##STR32## wherein R represents (i) a linear C.sub.14 -C.sub.18 alkyl radical or (ii) --CH.sub.2 A wherein A represents OR' wherein R' a linear C.sub.10 -C.sub.18 alkyl radical, and n represents an average statistical value n greater than 1 and equal to not more than 3 and, when R represents --CH.sub.2 A, n is also equal to 2.

10. The composition of claim 9 wherein said lipid phase also contains (i) an ionic lipid, (ii) a nonionic lipid other than the nonionic amphiphilic compound of formula (I) or both (i) and (ii).

11. The composition of claim 9 wherein said lipid phase also contains

(i) an additive to decrease the permeability of said vesicles, (ii) an additive to improve the stability of said vesicles or both (i) and (ii).

12. The composition of claim 11 wherein said lipid phase contains a member selected from the group consisting of a sterol or oxyethylenated, acid sulfate, alkali metal sulfate, acid phosphate or alkali metal phosphate derivatives thereof; a long chain alcohol or diol; a long chain amine or quaternary ammonium derivative thereof; a dihydroxyalkylamine; a polyoxyethylenated fatty amine; a long chain amino alcohol ester or a salt or quaternary ammonium derivative thereof; and a phosphoric ester of a fatty alcohol.

13. The composition of claim 9 wherein said vesicles encapsulate an aqueous phase and wherein said lipid phase or said encapsulated aqueous phase or both, contains a cosmetic active compound or a dermopharmaceutical active compound, or both.

14. The composition of claim 9 wherein said aqueous medium in which said vesicles are dispersed contains at least one of (i) a water-soluble cosmetic compound, (ii) a dermopharmaceutical compound, (iii) an amphiphilic active compound or (iv) a mixture thereof.

15. The composition of claim 9 wherein the walls of said vesicles contain at least one of (i) a fat-soluble cosmetic active compound or (ii) a dermopharmaceutical compound or both (i) and (ii).

16. The composition of claim 9 wherein said aqueous medium in which said vesicles are dispersed also contains a dispersion of droplets of a water-immiscible liquid.

17. The composition of claim 16 wherein said water-immiscible liquid contains at least one of (i) a fat-soluble cosmetic active compound, (ii) a fat-soluble dermopharmaceutical active compound or both (i) and (ii).

18. The composition of claim 16 wherein said water-immiscible liquid is selected from the group consisting of an animal oil, a vegetable oil, a natural or synthetic essential oil, a halogenated hydrocarbon, a silicone, an ester of an inorganic acid and an alcohol, an ether and a polyether.

L18 ANSWER 29 OF 29 USPATFULL
AN 89:45344 USPATFULL
TI Partially hydrolyzed, poly(N-acyl)alkylenimines in personal care
IN Brode, II, George L., Bridgewater, NJ, United States
Merritt, II, Frederick M., Lockport, IL, United States
PA Union Carbide Corporation, Danbury, CT, United States (U.S. corporation)
PI US 4837005 19890606
AI US 1986-913407 19860930 (6)
DT Utility
FS Granted
EXNAM Primary Examiner: Page, Thurman K.; Assistant Examiner: Rucker, Susan S.
LREP Gibson, Henry H.
CLMN Number of Claims: 19
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1591
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Partially hydrolyzed, poly(N-acyl)alkylenimines), and novel nitrogen-substituted derivatives thereof, provide useful and improved personal care compositions and processes.
CLM What is claimed is:

1. A personal care composition comprising carrier and an effective managing amount of partially hydrolyzed, poly(N-acyl alkylenimine) containing repeating units represented by the structural formula: ##STR9## wherein a is from about 1 to about 50 mole percent; and wherein for each repeating unit individually: Q is an anion; R.sub.1 is hydrogen, alkyl, aryl, aralkyl or alkaryl; R.sub.2 is hydrogen or a hydrocarbyl-containing group; R.sub.3 is hydrogen, alkyl, aryl, aralkylo or alkaryl; v is equal to the valence of Q; x is 2 or 3; y is 0 or 1; and z is 0 or 1; provided that: (1) when R.sub.3 is oxygen than y is 0, R.sub.2 is a hydrcarbyl-containing group and z is 1; (2) when R.sub.3 is not oxygen then y and z are 1; and (3) when all z values are 0 then at least one R.sub.3 group is a hydrocarbyl-containing group.

2. The composition of claim 1 wherein all R.sub.2 and R.sub.3 are hydrogen.

3. The composition of claim 1 wherein Q represents a mixture of anions.

4. The composition of claim 1 wherein at least one R.sub.2 or R.sub.3 is a hydrocarbyl-containing group.

5. The composition of claim 4 wherein at least one hydrocarbyl-conatining group has a cationic or anionic group.

6. The composition of claim 1 containing an effective amount of one or more suitable personal care ingredients sufficient to provide a soap, shampoo, cream, lotion, hair **spray**, hair or skin conditioner, mousse, antiperspirant, deodorant, hair set, hair wave, hair straightener, make-up, shave cream or gel, after shave lotion or balm.

7. The composition of claim 6 wherein said personal care ingredient is a **surfactant**, cleanser, colorant, **preservative**, moisturizer, pH adjustor, emulsifier, propellant, conditioner, **thickener**, fragrance, foaming agent, sunscreen, depilatory, flavor, astringent agent, antiseptic, deodorant, antiperspirant, **insect repellant**, bleach, anti-dandruff agent, adhesive, polish, strengthener, filler, barrier material, other personal care ingredient, or mixtures thereof.

8. The composition of claim 1 wherein: a is from about 3 to about 30 mole percent; Q is selected from the group consisting of: halides, phosphites, phosphonates, phosphates nitrates, sulfates, sulfonates, carbonates, carboxylates, or mixtures thereof; R.sub.1 is hydrogen, methyl, ethyl or propyl; each R.sub.2 and R.sub.3 is individually hydrogen, alkyl, aryl, alkaryl, aralkyl or alkyloxy which is unsubstituted or substituted with hydroxyl, sulfonato, amino, ammonio, carboxyl, carboxylate, or mixtures thereof; and v is 1 or 2.

9. The composition of claim 1 wherein each R.sub.1 is ethyl and each x is 2, providing the poly(N-propionyl ethylenimine) containing repeating units represented by the structural formula: ##STR10## wherein a, Q, R.sub.2, R.sub.3, v, y and z are as defined in claim 1.

10. The composition of claim 9 wherein: a is from about 3 to about 30 mole percent; Q is selected from the group consisting of: halides, phosphites, phosphonates, phosphates, nitrates, sulfates, sulfonates, carbonates, carboxylates, or mixtures thereof; each R.sub.2 and R.sub.3 is individually hydrogen, alkyl, aryl, alkaryl, aralkyl or alkyloxy which is unsubstituted or substituted with hydroxyl, sulfonato, amino, ammonio, carboxyl, carboxylate, or mixtures thereof; and v is 1 or 2.

11. The composition of claim 10 wherein: a is about 12 mole percent; Q is chloride, propionate, or mixtures thereof; each R.sub.2 and R.sub.3

is individually hydrogen, 2-hydroxy-3-(trimethylammonio)propyl, 2-hydroxy-3-(dimethyldodecylammonio)propyl, 2-hydroxy-3-sulfonatopropyl, 2,3-dihydroxypropyl, or mixtures thereof; and v is 1.

12. A process for producing a personal care composition which comprises providing a carrier with an effective managing amount of partially hydrolyzed, poly(N-acyl alkylenimine) containing repeating units represented by the structural formula: ##STR11## wherein a is from about 1 to about 50 mole percent; and wherein for each repeating unit individually: Q is an anion; R.sub.1 is hydrogen, alkyl, aryl, aralkyl or alkaryl; R.sub.2 is hydrogen or a hydrocarbyl-containing group; R.sub.3 is hydrogen, oxygen or a hydrocarbyl-containing group; v is equal to the valence of Q; x is 2 or 3; y is 0 is 1; and z is 0 or 1; provided that: (1) when R.sub.3 is oxygen then y is 0, R.sub.2 is a hydrocarbyl-containing group and z is 1; (2) when R.sub.3 is not oxygen then y and z are 1; and (3) when all z values are 0 then at least one R.sub.3 group is a hydrocarbyl-containing group.

13. The process of claim 12 wherein: a is from about 3 to about 30 mole percent; Q is selected from the group consisting of: halides, phosphites, phosphonates, phosphates, nitrates, sulfates, sulfonates, carbonates, carboxylates, or mixtures thereof; each R.sub.2 and R.sub.3 is individually hydrogen, alkyl, aryl, alkaryl, aralkyl or alkyloxy which is unsubstituted or substituted with hydroxyl, sulfonato, amino, ammonio, carboxyl, carboxylate, or mixtures thereof; and v is 1 or 2.

14. The process of claim 13 wherein each R.sub.1 is ethyl and each x value is 2 providing the poly(N-propionyl ethylenimine) containing repeating units represented by the structural formula: ##STR12## wherein a, Q, R.sub.2, R.sub.3, v, y and z are as defined in claim 12.

15. The process of claim 14 wherein: a is about 12 mole percent; Q is chloride, propionate, or mixtures thereof; each R.sub.2 and R.sub.3 is individually hydrogen, 2-hydroxy-3-(trimethylammonio)propyl, 2-hydroxy-3-(dimethyldodecylammonio)propyl, 2-hydroxy-3-sulfonatopropyl, 2,3-dihydroxypropyl, or mixtures thereof; and v is 1.

16. A process for managing keratinous substrate comprising applying to said substrate an effective managing amount of partially hydrolyzed, poly(N-acyl alkylenimine) containing repeating units represented by the structural formula: ##STR13## wherein a is from about 1 to about 50 mole percent; and wherein for each repeating unit individually: Q is an anion; R.sub.1 is hydrogen, alkyl, aryl, aralkyl or alkaryl; R.sub.2 is hydrogen or a hydrocarbyl-containing group; R.sub.3 is hydrogen, oxygen or a hydrocarbyl-containing group; v is equal to the valence of Q; x is 2 or 3; y is 0 or 1 and z is 0 or 1; provided that: (1) when R.sub.3 is oxygen than y is 0, R.sub.2 is a hydrocarbyl-containing group and z is 1; (2) when R.sub.3 is not oxygen then y and z are 1; and (3) when all z values are 0 then at least one R.sub.3 group is a hydrocarbyl-containing group.

17. The process of claim 16 wherein: a is from about 3 to about 30 mole percent; Q is selected from the group consisting of: halides, phosphites, phosphonates, phosphates, nitrates, sulfates, sulfonates, carbonates, carboxylates, or mixtures thereof; each R.sub.2 and R.sub.3 is individually hydrogen, alkyl, aryl, alkaryl, aralkyl or alkyloxy which is unsubstituted or substituted with hydroxyl, sulfonato, amino, ammonio, carboxyl, carboxylate, or mixtures thereof; and v is 1 or 2.

18. The process of claim 17 wherein each R.sub.1 is ethyl and each x value is 2 providing the poly(N-propionyl ethylenimine) containing repeating units represented by the structural formula: ##STR14## wherein a, Q, R.sub.1, v, y and z are as defined in claim 16.

19. The process of claim 18 wherein: a is about 12 mole percent; Q is chloride, propionate, or mixtures thereof; each R.sub.2 and R.sub.3 is individually hydrogen, 2-hydroxy-3-(trimethylammonio)propyl, 2-hydroxy-3-(dimethyldodecylammonio)propyl, 2-hydroxy-3-sulfonatopropyl, 2,3-dihydroxypropyl, or mixtures thereof; and v is 1.